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Alewife: A Plan for Sustainable Development

Draft (1/95)

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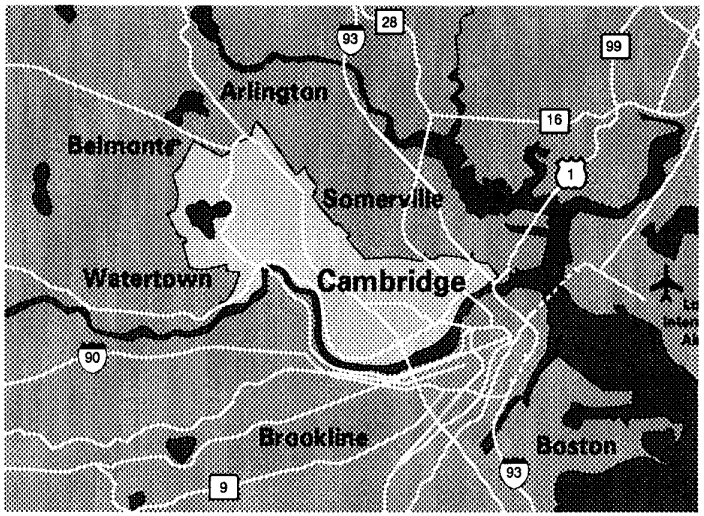
1 BACKGROUND



Located on the western edge of the city, bordering Route 2, Belmont, and Concord Avenue along the Fresh Pond Reservoir, the 370-acre Alewife area can be characterized in a number of ways: as a transportation corridor, as an environmental resource, and as an economic development district. All of these functions make Alewife a vitally important area for Cambridge and for the region.

This master plan for the Alewife district on the western side of Cambridge is being designed to be consistent with the City's growth policy document entitled *Toward a Sustainable Future*. Planning and design for Alewife and for the growth policy effort have been taking place simultaneously, and both documents are now in draft form. The City intends to continue refining each piece of work, with the overall goal of clarifying a vision for how the City can evolve in ways that respect the concept of "sustainability," defined by the World Commission on Environment and Development as "Meeting the needs of the present without compromising the ability of future generations to meet their own needs."

PLANNING PROCESS

Planning for Alewife dates back over twenty years. The most recent Alewife planning effort resulted in the 1979 publication of the *Alewife Revitalization Plan.* That plan, and a subsequent rezoning of the district, established a set of development goals and guidelines for Alewife. Some of these goals were achieved during the 1980s. The MBTA completed the Alewife Red Line Station and parking garage, and new development occurred along CambridgePark Drive to the west of the Alewife MBTA station and along Concord Avenue. However, at the end of the decade, many of the elements of the plan remained unrealized. In addition, some projects that were built, such as the new office buildings along Cambridgepark Drive, seemed isolated from abutting neighborhoods and did not reflect the traditional fabric of Cambridge.

Concern about Alewife's future was voiced in the 1990 North Cambridge Neighborhood Study. The Neighborhood Study Committee was troubled that the urban design vision for the area had not been achieved fully and felt that it needed to be reexamined. Realizing that most of the development that did occur in Alewife was new or renovated office space, they expressed concern about future development and the types of job opportunities this development would generate.

The North Cambridge Study Committee suggested the formation of a working group to reexamine the 1979 plan and make recommendations on the type and amount of development that is appropriate for each area within Alewife.

Alewife Master Planning Process (1991-1993)

Responding to the recommendation of the North Cambridge Study Committee, the City Manager and the Community Development Department initiated the Alewife Master Planning Study in August, 1991. That fall, at the beginning of the planning process, the City Council passed a resolution confirming that "there is a current need for the City to develop a new master plan for the Alewife area...to guide future development in the area."

The master planning process has involved the active participation of the Alewife Steering Committee, a ten member group representing Alewife businesses, landowners and the abutting neighborhoods, Neighborhoods Nine, Ten, Eleven (North Cambridge), and Twelve (Cambridge Highlands). The Steering Committee's role has been to assist in identifying and refining the major issues affecting the use of land in Alewife, to provide viewpoints and concerns on specific planning issues, to react to and provide feedback on specific planning proposals and to assist in developing recommendations and an implementation strategy for a new master plan. Throughout the process, the Committee strived to reach consensus in their recommendations; however, while there was agreement on the basic goals of the plan, not every Committee member endorses unconditionally every single recommendation. The Committee members do endorse the Plan as a whole.

In addition to the Steering Committee, a Public Agency Committee was formed to help develop the Master Plan and comprises representatives from the Metropolitan District Commission (MDC), Metropolitan Area Planning Council (MAPC), Metropolitan Boston Transportation Authority (MBTA), Massachusetts Department of Public Works (MDPW), and the towns of Arlington and Belmont. They have followed the work of the Steering Committee, commented on the committee's recommendations, and suggested refinements and additional recommendations.

Steering Committee Work

For two years, from the summer of 1991 to the summer of 1993, the Community Development Department worked closely with the Steering Committee. During the fall of 1991, the Committee reviewed background information and data, toured the area, engaged in planning exercises and discussed concerns and goals in depth. A public meeting was held to explain the purpose of the study and to elicit comments from the community and landowners regarding their planning issues and goals for Alewife.

From January through August, 1992, the Steering Committee and the Department worked on several substantive planning modules addressing the major issue areas: environment and open space, economic development, housing, transportation, land use and urban design. Preliminary recommendations were developed through these sessions and were presented at a public meeting in October, 1992.

Using feedback from that meeting, the Department together with the Steering Committee reviewed and refined its recommendations. From January through June, 1993, the Steering Committee met with staff to consider implementation strategies and finalize a draft master plan for Alewife. This draft was reviewed by the Planning Board in July 1993. Their review included both discussion of the master plan and its consistency with the planning policies outlined by the Board in its draft of the Growth Policy document, *Toward a Sustainable Future*. The Alewife Planning Study was then revised to reflect the Planning Board's comments and to illustrate the links between this planning effort and the Growth Policy process. That Alewife Planning draft was circulated to landowners, businesses, residents and community groups for comment. A third opportunity for public review and comment was held in November 1993 in the form of a Planning Board meeting, and during the winter of 1994, presentations were made to several business and neighborhood groups. The Planning Board considered the final draft in meetings in early 1994.

2 Goals of the Plan

In order to create a framework for discussion of goals and recommendations, the Steering Committee and the Department created a comprehensive issues map in the initial phase of the study. This was presented at the first public meeting in 1991, where there was opportunity for additional input. The Committee and the Department used this map throughout the course of the study as a reference to focus on and address the initial issues that prompted the study.

The Committee's discussion and understanding of these planning issues led to the development of goals in five planning areas: environment and open space, transportation, housing, economic development, and urban design.

Environment and Open Space

Alewife is an area rich in environmental and open space resources. The district is surrounded by numerous publicly owned open spaces including two city-owned recreational facilities: Rafferty Playground, a small, neighborhood facility in the Cambridge Highlands Neighborhood and Danehy Park, a 50-acre, city-wide, multi-use facility.

Alewife's open space resources include the 115-acre Alewife Reservation and Blair Pond, both owned by the Metropolitan District Commission (MDC), and the city's Fresh Pond Reservation. Each of these facilities provides significant recreational and environmental benefits to the city and the region. Determining the appropriate mix of uses for these sites will help to balance two important needs: protection of environmental resources and accommodating recreational use within the open space system. Although usually considered in conjunction with their land resources, water resources in and of themselves are also an important environmental feature of the Alewife area; these include not only the Fresh Pond Reservoir, but also Alewife Brook, Little River, Jerry's Pond, Yates Pond, and Blair Pond.

The City's draft growth policy document proposes a number of policies that suggest environmental and open space goals for the Alewife area. The open space policies clearly identify the need to protect and maintain important environmental resources, such as the Alewife Reservation. Recreational use of these resources by the public must be carefully planned and balanced with resource preservation. The need for and value of additional open space, both public and private, is also recognized. New private open space that is either visually or physically accessible to the public is seen as an appropriate component of new development, particularly in the city's evolving industrial districts. The Growth Policy document also recommends infrastructure improvements that will create a safer pedestrian environment and encourage bicycling and walking. This policy serves a number of objectives, including upgrading the city's physical environment.

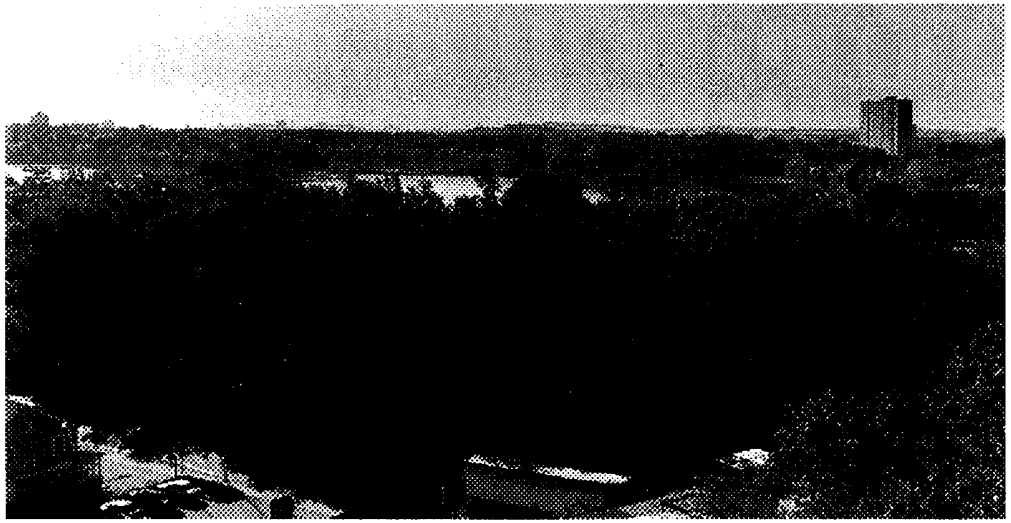
To ensure that Alewife's open space and environmental resources are planned and managed to provide maximum benefit to Cambridge and the region the following goals are proposed.

PROTECT AND UPGRADE EXISTING ENVIRONMENTAL RESOURCES

The Alewife Reservation is a special urban wild, providing a habitat for a number of water fowl and other wildlife species. In addition, it presents recreational opportunities for nature lovers to walk and enjoy its unique landscape or to canoe through the Reservation via the Little River to Little Pond. However, the Reservation's significance as an urban wild limits its use for active recreation and requires careful planning to determine where and to what extent public access is appropriate.

The Reservation and the recently acquired Blair Pond also require a substantial amount of upgrading. Limited public resources for maintenance and management have made it difficult for the MDC to control undesirable uses, littering and dumping in these areas.

Similarly, the 320-acre Fresh Pond Reservation is a unique natural resource, providing the city with its public water supply and high quality open space and recreational opportunities including the city golf course, paths for bicycling, walking and jogging and areas for sledding and picnicking. While maintenance of the Fresh Pond Reservation is generally good, more attention needs to be paid to the edges of the property, along Concord Avenue and Fresh Pond Parkway. These boundaries link Fresh Pond with Alewife and should be maintained to highlight the reservation's visual and open space amenities.



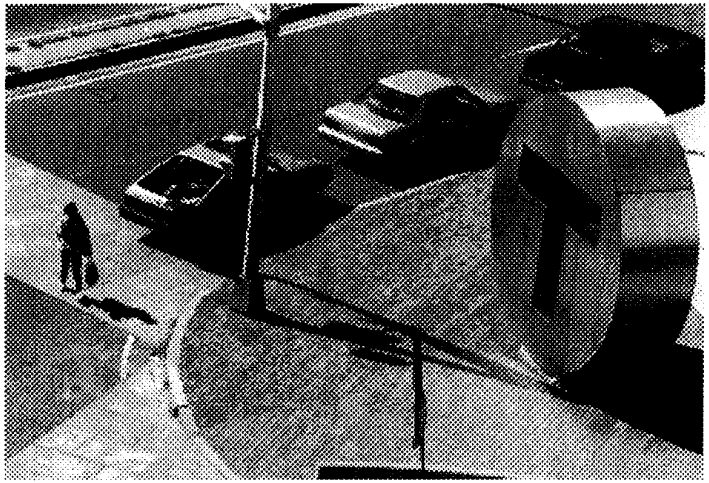
EXPAND OPEN SPACE NETWORK

With the important exception of the Alewife Reservation, most of Alewife's existing open space is in fact located around its perimeter. Very little exists in the interior portions of the business and commercial districts. As a result, much of its environment is stark, lacking pedestrian oriented amenities and easy, pleasant connections between the substantial open spaces which exist on the perimeter. An important goal of this plan therefore is to expand the open space network into the interior portions of the district. This can include improved pedestrian and bicycle connections with better sidewalks, tree planting, landscaping and new bicycle paths, as well as new open space. New open space, both public and private, should be encouraged where possible to help create an environment that is pleasant for those who work in or live near Alewife.

CREATE A SAFER ENVIRONMENT FOR PEOPLE

Poor pedestrian and vehicular connections, badly lighted areas and isolated locations all contribute to concerns about public safety in Alewife, including the Alewife Reservation. The area's environmental and open space resources should be planned and used to create a safer sense of place and must be designed with the needs of pedestrians and bicyclists, and both daytime and nighttime users in mind.

TRANSPORTATION



Over the past few decades, the Alewife area of Cambridge has had more than its share of controversial transportation issues; in the 1960s there was the proposed Route 2 Freeway Extension, in the 1970s came the various Red Line Extension alternatives, and in the 1980s, controversy as to the proper treatment of the Alewife Brook Parkway. The outgrowth of all this has been that the freeway treatment of Route 2 stops at Alewife, the Red Line terminates there with a station and a 2000 car parking garage on the west side of Alewife Brook Parkway, and the Alewife Brook Parkway will maintain its "parkway" character as much as possible. An example of the latter is the MDC's bridge replacement project, which began construction in summer, 1993, and extends from Rindge Avenue to the rotary at Concord Avenue (where the Ground Round restaurant is located). This improvement will strengthen that parkway character with the inclusion of new landscaping, lighting, sidewalks, and bikepaths. All of these decisions will shape the future of Alewife and the whole of West Cambridge by limiting the amount of vehicle traffic through the area.

The most recent traffic studies that have been conducted for the Alewife area are the City's EIR (Environmental Impact Report) for the Alewife Local Roadway Improvement Project, approved by MEPA (Massachusetts Environmental Protection Agency) in 1984, and the various studies undertaken by the Massachusetts Highway Department in the mid- to late 1980s. All analysis in these studies has indicated that most intersections are now at or above capacity and that this condition is not likely to change in the foreseeable future. In addition, since only a small portion of the vehicles travelling through the area actually have a destination in Alewife - according to a recent CTPS (Central Transportation Planning Service) study, only 40% of the traffic even has a destination in Cambridge - any program to increase capacity would only make travel through the area easier and in all likelihood actually attract more traffic.

The Growth Policy document proposes a number of transportation and land use policies to mitigate automobile use while promoting an effective transportation network that is critical to a healthy economic base. These include: support for Transportation Demand Management strategies (commuter mobility) to promote non-single occupant vehicle forms of transportation, developing land use regulations that support transit use, improving the functioning of the city's street network without increasing through capacity to facilitate bus and other non-automobile circulation, and encouraging all reasonable forms of non-automobile travel including bicycling and walking.

These policies provide a framework for addressing a critical planning issue facing Cambridge: how can the city achieve its goal of providing needed jobs and tax base at Alewife while protecting abutting neighborhoods from potential traffic impacts.

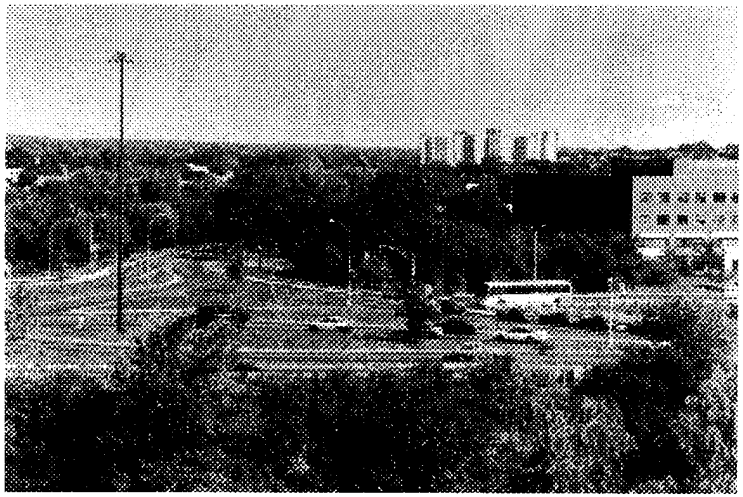
Two transportation goals are proposed to address this issue.

PROMOTE NON-SINGLE OCCUPANT VEHICLE TRAVEL

An important goal for the Alewife area, supported in the draft Cambridge Growth Policy document, is to implement projects and programs that will promote and make easier travel by transit, bicycle, walking, and non-solo driving options such as car pools and van pools. By implementing the transportation management measures in the Cambridge Vehicle Trip Reduction Ordinance, including improving the public transportation system and expanding the bicycle path network and commuter mobility programs, the City can help control traffic growth in the area.

IMPROVE PEDESTRIAN, BICYCLE, TRANSIT AND VEHICULAR CONNECTIONS WITHIN ALEWIFE

Pedestrian and bicycle connections to encourage and make feasible these alternative forms of commuting, recommended as transportation management measures in the Cambridge Vehicle Trip Reduction Ordinance, are essential. Roadway improvements should not increase roadway capacity and should be restricted to connections which would improve safety, promote transit, improve emergency vehicle access, and allow for better bicycle and pedestrian circulation. Improved public transportation connections, both to and within Alewife, are essential elements of an improved transportation network.



HOUSING

Although Alewife is surrounded by residential areas of Cambridge, Arlington and Belmont, there are only a handful of residential uses within the district, located along the Concord Avenue edge. The current mix of uses found within Alewife and a physical environment that offers few residential amenities are presently incompatible with residential uses. However, given the substantial acreage of the district and the goals of this plan to better connect Alewife to the fabric of the city and to make it a safer environment, additional housing is desirable.

The Growth Policy document includes a number of land use and housing policies that support incorporating a residential component in the redevelopment of the city's industrial areas. The policies recognize the benefits housing can afford in strengthening existing neighborhood edges, creating appropriate transitions between uses, providing opportunities for people who work in Cambridge to live here, limiting automobile use and encouraging more active use of these areas throughout the day.

At the same time, the Growth Policy document acknowledges the importance and need for industrial and commercial uses, some of which will be incompatible with new housing. This incompatibility can occur either because of the type of industrial activity or because of scarce land resources in which to accomplish multiple land use objectives. As a result, the future mix of uses in the city's industrial areas will need to be shaped by the particular circumstances of each area and balanced to help achieve all of the goals for that area.

Within the land use constraints and multiple land use objectives for the Alewife area, a goal of this plan is to:

ENCOURAGE OPPORTUNITIES FOR HOUSING

This plan recommends that new housing be added to extend and strengthen the residential uses at the edges of the Alewife area. The focus should be on encouraging those opportunities where housing is most appropriate, located adjacent to similar or compatible uses, and where it will help integrate the residential neighborhoods with other uses in the Alewife area.

In addition to promoting housing along the residential edges, housing will continue to be a permitted use in many of Alewife's subdistricts. This is intended to allow the flexibility to develop housing in the future if it is appropriate based on changes in the Alewife area and in market conditions. However, there are areas, particularly in the interior of the Quadrangle, where housing is neither a desirable nor a preferred use and should not be encouraged.

Economic Development

Alewife has been historically an important economic resource for the City of Cambridge. Its many industries have produced needed jobs and contributed to the City's tax base. As with the city's other industrial areas, Alewife has experienced change over the last few decades as traditional manufacturing has left the city and been replaced by new technologies and service companies.

The 1980s witnessed substantial new office development in various parts of Cambridge including Alewife. These projects contribute significantly to the tax base and created new jobs. Many of these, however, are white collar jobs requiring advanced education and training and do not replace the blue collar jobs which once existed. Intensive growth in the 1980s also raised concerns about future development patterns and their impact on neighborhoods and the city's physical environment.

These changes in the economy have resulted in new economic development strategies for the City. The diversity of incomes and educational levels held by the city's residents necessitates a range of jobs with different skill levels. Research and development in emerging technology industries will create manufacturing jobs in coming years. Cambridge will need to work to promote the expansion and retention of those industries for which the city has a competitive advantage.

The Growth Policy document recognizes that the city's evolving industrial areas are a valuable resource whose mix of uses must be carefully planned to achieve multiple goals and objectives. The economic development policies recommend that appropriate development be encouraged in these area to maintain the city's overall economic health, to expand the tax base, and to expand job opportunities for Cambridge residents. It further recommends strengthening the development of clusters of related uses for which the city, or a particular area of the city, has a competitive advantage.

The Growth Policy document also supports strengthening the city's existing retail and commercial areas and recommends that any new major retail activity be directed toward these areas. The land use policies encourage the inclusion of support retail services in the redevelopment of industrial areas to reduce the need to use the automobile during working hours and to enhance the liveliness of the area.

Alewife will continue to play an important role in the City's economic future. Recognizing this, the Alewife Master plan promotes two important economic development goals.

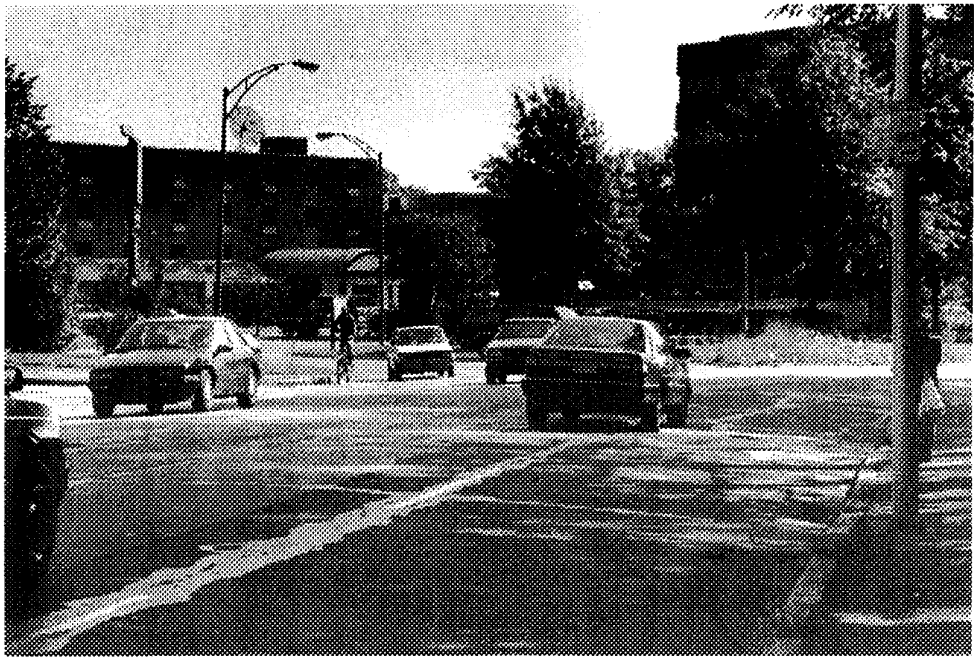
ENCOURAGE PRIVATE DEVELOPMENT TO MAINTAIN AND EXPAND THE NUMBER AND TYPE OF JOB OPPORTUNITIES, INCREASE THE TAX BASE AND UPGRADE THE PHYSICAL ENVIRONMENT

Alewife represents a valuable economic resource for Cambridge. It is an employment base, providing a mix of jobs in a number of fields including retail, consulting services, biotechnology and other R&D and manufacturing uses, and is an important source of tax revenue for the city. As an evolving industrial district, Alewife is one of the few remaining areas in the city where new economic growth can occur. This economic growth will also result in physical changes to the district that can support the plan's environmental goals.

ENCOURAGE STRONG RETAIL AREAS AND SUPPORT SERVICES

For Alewife to succeed as an area where businesses will choose to locate or expand, it is important to provide a mix of retail and other services to support the business environment and the needs of the surrounding community. Restaurants, shops, pharmacies, banks and similar services located within the Alewife area provide opportunities for workers and residents to use the area in a number of ways.

URBAN DESIGN



The Alewife area presents an extraordinary number of difficult urban design challenges. Unlike the majority of districts in Cambridge, virtually no one lives in the entire area; there is little of the vitality that flows from the mix of uses elsewhere in the city; and the scale and pattern of development is almost completely automobile-oriented, with few incentives to stroll through the area or to linger anywhere within it.

The Growth Policy document stresses the need for careful attention to the details of urban design that so dramatically impact the urban environment and the way people experience the city. It supports the idea that new development enhances the pedestrian environment and the public realm along city streets. It recommends that the evolution of the city's industrial areas be encouraged, under the guidance of specific urban design plans. This will ensure appropriate transitions, particularly from residential edges and a mix of uses, densities and scales that will create and define an urban environment in keeping with the city's character.

The broadest urban design challenge is to make Alewife feel like it is part of Cambridge. More specifically, there are three primary Urban Design goals that govern the plan:

CREATE AN AREA THAT CONNECTS TO CAMBRIDGE

Today this area is much more a route from one place to another than it is a recognizable destination in and of itself. It is predominantly a set of spaces roughly aligned along Route 2, the Alewife Brook Parkway, the Fresh Pond Parkway, and the Fitchburg Main Line that carries through traffic and trains to Boston and points south and west. The area is bisected by these automobile routes and railroad rights-of-way. To some extent, these divisions define and buffer quite different uses. They also reinforce artificial separations. Linkages between recreational assets must be strengthened as must the integrity of pedestrian and bicycle ways; access routes between sectors must be facilitated but not where or in a way that such connections would encourage through traffic. Linkages should also be created so as to enhance the opportunities to use public transit as a means for accessing Alewife and for travelling within Alewife; this would include, for example, systems that would enable jitney or shuttle bus services to run. A goal of the Plan is to weave this area into the fabric of the city — to let its form, use and patterns of connectivity be dictated not merely by outside faces but by the needs of the community.

CREATE A MORE COHESIVE AND LIVABLE ENVIRONMENT

In reweaving the fabric of this district into the community it is important that each piece or district also stand on its own in service of the constituencies who form it. Today the quality of each of the four primary subdistricts suffers not only from arterial edge conditions but also from a lack of internal coherence. Assets are not taken advantage of, and random development patterns have resulted in uses and forms lacking in identity and mutual support. A vision for each subdistrict is needed to provide cohesiveness and livability.

CREATE A SENSE OF PLACE AND A POSITIVE IMAGE FOR THE AREA

The combination of an area dictated by the demands of through traffic and lacking either connectivity between, or coherence within the pieces has resulted in a nondescript area reminiscent of the automobile culture that dominates much of the country. The special character imparted to most of Cambridge's neighborhoods, work places and shopping areas is missing here. It is a goal of the plan to reassert that sense of place.

3 THE MASTER PLAN

AREA-WIDE RECOMMENDATIONS

The Alewife Master Plan presented in this document is the result of a careful analysis of the goals developed by the Steering Committee.

To achieve the goals, the plan proposes both system-wide and area specific recommendations. It is not intended that every goal will be implemented in all parts of Alewife. Some goals will be achieved through area-wide recommendations, for example, establishing standards for a bicycle/pedestrian system. Other goals, such as promoting Alewife as a location for emerging technology companies, will be targeted to a certain subdistrict or subdistricts within the Alewife area.

URBAN DESIGN RECOMMENDATIONS

To respect the goal of better connections, it is important on an area-wide basis to promote coordinated and consistent upgrading of parkways and major roads. For example, parkway landscaping should be designed so that there is a pleasant aspect to the entire procession from Route 2 onto Alewife Brook Parkway and further into the city via Fresh Pond Parkway or Concord Avenue and beyond.

To meet the goal of a more cohesive and livable environment, there should be area-wide height limits and setback requirements to help make a more understandable pattern of development. Building design for individual structures should take into account the interaction of that design with the whole system of the built environment in Alewife. Otherwise, the "strip" pattern of individual buildings created with no concern for the larger picture will continue to dominate, and the goal of livability will be hard to achieve.

To realize the goal of creating a sense of place in Alewife, a number of steps should be taken to help transform the image from a series of strip developments into a welcoming, unified district. Being on the western edge of the city, Alewife serves as a gateway to Cambridge. The entry points (Route 2, Concord Avenue) should be enhanced to create a positive first impression. Signs throughout the area should be improved. Public signs identifying the entry to the city are needed, and private signs should be much more carefully designed to respect the recent changes in the Cambridge sign ordinance. In addition, the intent of the landscaping provisions of the Parkway Overlay District should be respected throughout Alewife; that is, not only should there be public landscaping along streets, but the private setbacks should also be attractively landscaped. Ideally, in the long run there should be no parking adjacent to major public ways; if there is parking, however, it should be landscaped rather than left as bleak as most existing lots in the area.

URBAN DESIGN STRATEGIES

The means of achieving the Urban Design Goals of the Alewife Plan are severalfold. They are not limited to any one area but rather attempt to seize the variety of opportunities within the larger plan area while addressing the problems of use, form, connection, and access to and through the area that have been exacerbated through time. They recognize that the area is a significant gateway to the city while simultaneously being a part of several neighborhoods, a center for

employment, a service commercial district and a recreational asset.

The plan posits a series of interventions to deal with these complexities. Guiding these interventions are a handful of specific strategies:

Build on Existing Assets

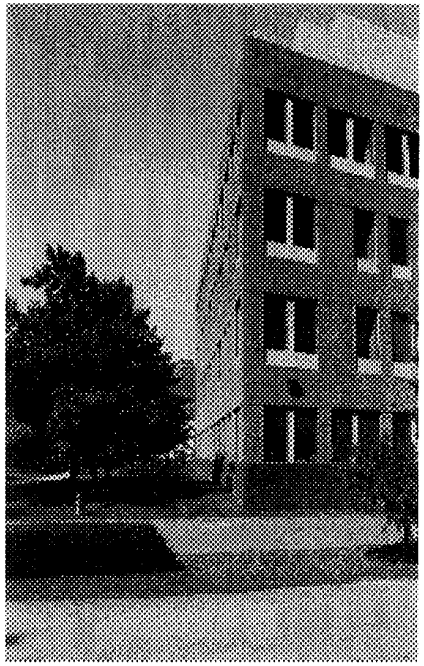
There are a large number of assets in the area ranging from Jerry's Pond to Fresh Pond, from Danehy Park to the Minuteman Bikeway, from solid and recognizable neighborhoods to road patterns that form the basis for a comprehensive street network. Building on these assets will yield site specific solutions that fortify and supplement the existing structure of the area rather than imposing insensitive generic plan solutions upon it.

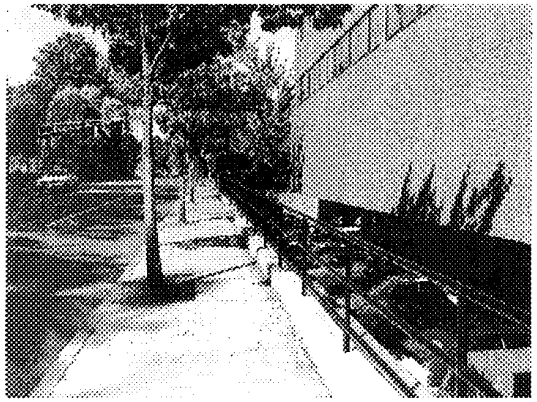
Make Wholes that are Greater than the Sum of the Parts

The strategies of building on existing assets and remedying subdistrict specific issues are proposed in the context of the area as a gateway to the city and the understanding that areas of concern cross subdistrict boundaries. Interventions should at once deal with each area individually and in full recognition of the comprehensive image and linked systems it will necessarily incorporate.

Intervene Realistically

The federal dollars that marked urban programs in the 1970s and 1980s have to a large extent dissipated and are not likely to be available again due to federal budget deficits. Likewise, lending institutions are more reluctant to participate in large scale speculative development, and the City is not in a position to take on major land acquisition or subsidy programs. An urban design plan must therefore rely on strategic interventions with, perhaps, modest capital investments, public-private partnerships and regulatory rather than fiscal stimulative devices to guide development along desired lines. Any plan should assume nominal public expenditure and should operate within state enabling statutes if it is to be realized.





TRANSPORTATION RECOMMENDATIONS

ROADWAY CONNECTIONS

In order for Alewife to function as both an integrated part of the city and as an imageable district, usable connections need to be made to the surrounding neighborhoods, as well as between and within the subdistricts.

Recommendations for specific ways to make these linkages, portrayed in the accompanying map, are discussed under the area recommendations that follow, but it is important to recognize that transportation is a system. The intent of creating connections is not to increase road capacity, but rather to enable people to get to and around Alewife safely and easily. This also addresses the urban design goals of creating better connections, a more cohesive and coherent environment, and a greater sense of place.

PUBLIC TRANSPORTATION

One of the goals of the Master Plan is to promote the use of public transportation.

The most important transit improvement for the area would be to provide a better connection from the Quadrangle area to the Alewife Red Line Station. The Fitchburg Mainline Railroad right-of-way constitutes a physical barrier prohibiting pedestrian, bicycle, and shuttle bus access to Alewife Station. This problem could be solved by linking Smith Place with CambridgePark Drive across the railroad. Provision of such a connection is not intended to increase road capacity, but rather to provide more direct access for transit uses and accommodate internal circulation. Use of this connection could be restricted to buses, shuttle vehicles, bicycles, pedestrians, vanpools, and maybe carpools.

This improvement was first proposed in the 1970s as Alewife Boulevard. This new plan does not envision the new road and crossing to be on that grand scale, but rather to be an improved roadway, where the primary function of the connector between the Triangle and the Quadrangle is as a public transportation, bicycle, and pedestrian facility.

At the State level, the MBTA should expand and improve the feeder bus network to the Alewife Station. This would include, but not be limited to, implementing new bus routes to the Alewife MBTA Station from Waltham and Waverly Square via Belmont. These routes were originally recommended in the MBTA's Northwest Corridor Bus Study

conducted in conjunction with the Red Line Extension. However, due to opposition from Belmont, they were never implemented.

The MBTA and the MHD (Massachusetts Highway Department) should construct parking facilities along Route 128 and beyond with shuttle buses running to Alewife Station.

The addition of a commuter rail stop at Alewife has been in demand for many of the businesses in the area, as it would provide a benefit to their employees. The commuter rail station could have the added advantage of creating a pedestrian connection across the railroad tracks, as it would need to be accessible from both the Quadrangle and the Triangle.

A major public transportation improvement for the area would be regular shuttle bus service connecting primary destination points, such as the MBTA station, commuter rail station, shopping center, and major employers. The CambridgeSide Galleria shuttle has proven an effective and much-used system for East Cambridge.

NEW MODES OF TRANSPORTATION

Electric vehicles and alternative fuel vehicles are being looked at in cities around the country and around the world as cleaner alternatives to the traditional automobile. A pilot program is being launched in the Boston area for commuters to lease electric vehicles and drive them to commuter stations, where the vehicles will be recharged during the day while the commuters are at work. One of the experimental locations is the Alewife MBTA station. The program is being sponsored by the State Division of Energy Resources, the Massachusetts Highway Department, and the Massachusetts American Automobile Association.

The use of electric vehicles demands additions to the infrastructure, such as recharging stations. In 1993, a local group of architects, engineers, and planners, won a national award for their vision of Cambridge in the year 2008; their vision begins in the Alewife area.

New buildings and parking facilities in Alewife should be designed so as to accommodate this new transportation form in the future. Refueling facilities for other alternative fuels should also be considered for the area. When shuttle buses are established in Alewife, they may be in the form of electric or alternative fuel vehicles.

BICYCLE AND PEDESTRIAN SYSTEM

The primary goal for the bicycle and pedestrian system is the improvement of pedestrian and bicycle facilities so that walking and cycling are not merely accommodated, but are encouraged. Safe, convenient and clear connections between all sections of Alewife for pedestrians and cyclists are key elements to making the entire area work as a whole. The environment should be pleasant and appealing so as to entice people to walk; this counts for walks to and from transit stations, lunchtime errands, or general leisure strolling. By the same token people should feel comfortable cycling along the roads in the entire area. For some of the distances that are perceived to be above the walking threshold, a bicycle ride would prove a quick trip. Reasonable bicycle commuting distance can be assumed to be 5 miles or 30 minutes. This would reach most of Cambridge, and much of Somerville, Arlington, Belmont. There are also people who live within walking commuting distance in Cambridge, Arlington and Belmont.

PEDESTRIAN FACILITIES AND AMENITIES

Although the issues around establishing good pedestrian environments could constitute their own master plan, there are some basic elements that are essential; these are outlined here.

Sidewalks, Landscaping, Street furniture

Aside from the basic minimum standards that have been established regarding handicap access (4' clearance between street furniture and other edges such as a building or landscaping), sidewalk widths should be determined by anticipated pedestrian flows. Suggested sidewalk widths for the Alewife area are 8-15 feet. The addition of trees and greenery to this area will be a significant plus. As many trees as can be accommodated should be planted. Other greenery can be an amenity, but wide front lawns are not encouraged, as this tends to isolate the buildings that are set back. Street furniture - lighting, benches, signs, trash receptacles - should be scaled and sited with the pedestrian in mind. Certain elements should also be geared to the bicyclists (especially signage).

Active street use

In order to create a pedestrian-oriented and pedestrian-friendly environment, building setbacks should not be too great. Ground floor retail use is being encouraged along the primary pedestrian ways (CambridgePark Drive, Alewife Brook Parkway). All buildings should have doors and windows on the street and there should be no blank facades (this is addressed also in Urban Design requirements). Parking should be located behind or to side of buildings

Destinations

Pedestrian-oriented destinations (i.e. places to walk to) are important, e.g. restaurants, places to do errands.

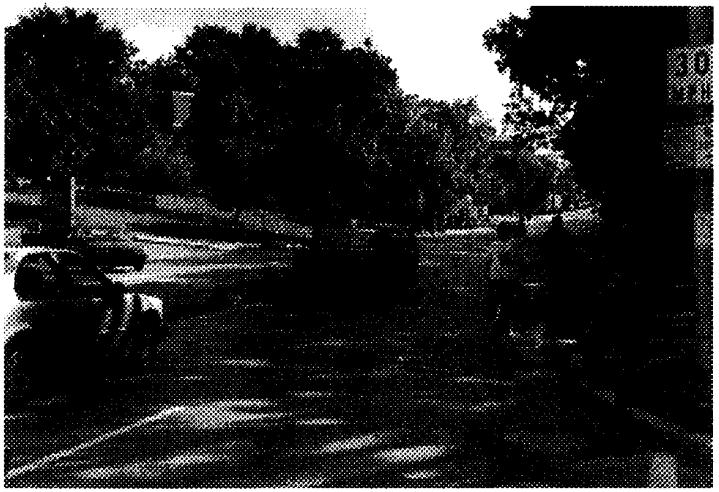
Stopping places

People should have places to stop along the way that make the walk more enjoyable. This includes pocket parks, places to sit, shady spots under a tree but in view of the mainstream.

BICYCLE FACILITIES AND AMENITIES

Travelling

In Alewife, as in the rest of the city, all new and reconstructed roads will be required to accommodate bicyclists. How this is done will depend on the road type (arterial, secondary, etc.), anticipated motor vehicle traffic patterns, and available right-of-way. Potential bicycle accommodations include bicycle tracks (physically separated rights-of-way exclusively for bicycles), bicycle travel lanes (striped lanes within street right-of-way) and wider outside lanes (where traffic volumes are low).



Parking

Bicycle parking facilities should be provided at every travel destination. Particular attention should be given to major destinations such as the commuter stations and retail facilities.

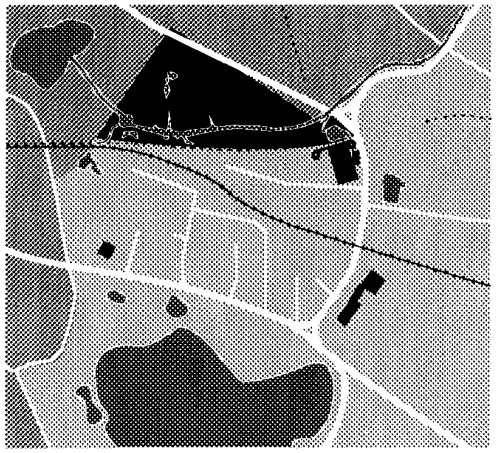
4 THE MASTER PLAN

SUB-AREA RECOMMENDATIONS

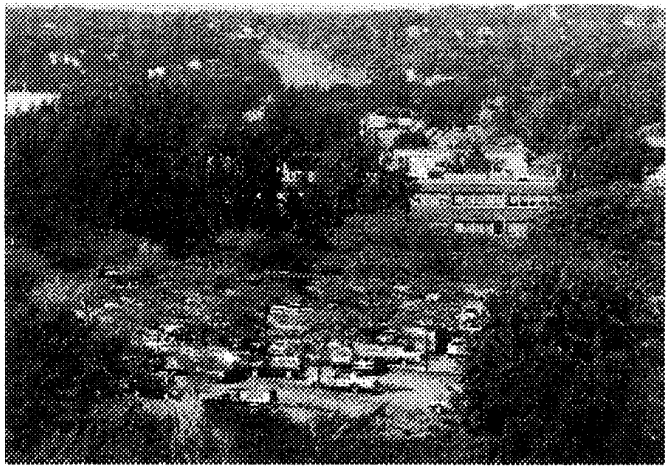
Following the area-wide strategies, more detailed recommendations are made in light of the strengths and opportunities found in each of the four subdistricts within Alewife: Route 2/Alewife Reservation, the Triangle, the Quadrangle and the Fresh Pond Commercial Area.

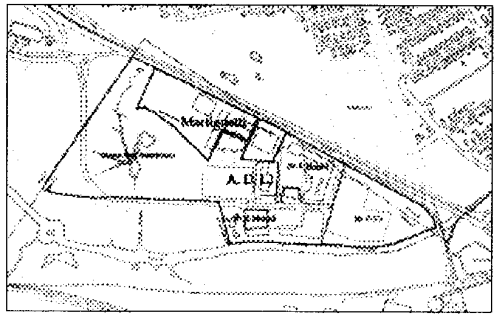
The site identified as Alewife Center/W.R. Grace, to the east of the Alewife MBTA station across Alewife Brook Parkway, was initially in the study area, but no specific recommendations were made for the site, since there is an existing plan for the development of Alewife Center. Considerations about connections to Alewife Center are included, as are recommendations about Jerry's Pond, a water and open space resource.

AREA 1
ROUTE 2/ALEWIFE RESERVATION



This area consists of two distinct parts: the first is the protected open space land, both in public ownership in the form of the Alewife Reservation, and in private ownership, where it is owned by Arthur D. Little but protected by wetlands regulations. The second is the developable land, sitting strategically between Route 2 and the Alewife Reservation land north of Little River. Occupied by the Arthur D. Little Company and a series of non-conforming strip commercial uses abutting Route 2, this area acts as a gateway to the city and is an important employment resource. It is also an edge to and linkage between significant portions of the open space system of the city.





Ownership is currently fragmented between the MDC, which controls the Alewife Reservation and two privately held assemblages: the Arthur D. Little office campus and the Route 2 frontage composed of non-conforming strip commercial uses.

ACCESS AND LINKAGES

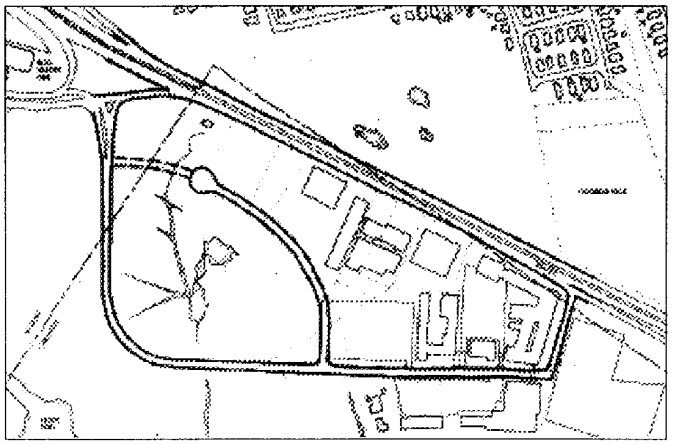
Ideally, access to all private holdings would occur from Acorn Park, the loop road that accesses Arthur D. Little. A road encircling the wetlands could give access to all properties and forego the need for Route 2 curb cuts or frontage roads. Given divergent development objectives between ownership entities, such a pattern in the short term is unlikely. As redevelopment of properties abutting Route 2 occurs, curb cuts should be regulated by the State and frontage road solutions tested.

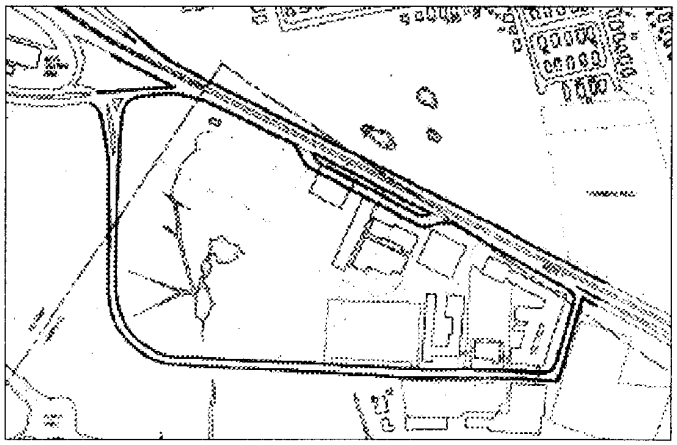
A full frontage road emanating from the access loop in Arlington and extending to the Alewife Station off-ramp is unlikely given the hardship it places on frontage parcel access, as the decision to access properties must be made in Arlington before the properties are even in view.

Access to a partial frontage road is governed by the weaving conflicts generated by traffic weaving into Route 2 from the Lake Street access and egressing from Route 2 to frontage parcels or roads. The solution to the complicated weaving conditions along Route 2 still needs to be worked out; the City will work together with the Massachusetts Highway Department and property owners along Route 2 to implement the best solution.

An abbreviated frontage road is desirable to (a) prevent multiple curb cuts which impact both safety and traffic flow on Route 2, (b) provide a buffer to development thereby permitting an upgrade of the visitor gateway experience to the City, and (c) establish a development framework for frontage parcels.

A series of pedestrian and bicycle routes cross this subdistrict linking resources both within and beyond it. Several of these need upgrading.





The pedestrian route from the Alewife MBTA Station to the Arlington community at Thorndike Field coincides with Cambridge access to the Minuteman Bikeway. These are tangent to this district at its eastern tip. Currently, the quality of the connections are unkempt and inadequate as they cross the Yates Pond viaduct adjacent to the MBTA Station and in conflict with vehicular traffic egressing Route 2 toward the Alewife Station. Sidewalks need to be widened with the concurrent narrowing of the vehicular right-of-way, and general structural and landscape improvements need to be made to promote usage and safety. The sidewalk from the station leading to the Arthur D. Little site needs similar upgrading; enhancing this pedestrian linkage would make the commute by transit more attractive to ADL employees.

This area is also a critical node for bicycle routes, as connections to the Minuteman Bikeway, the Belmont bicycle path, Linear Park, and the Alewife MBTA station converge here. However, the routes do not connect well to each other, and improvements in connecting these paths (also within the Triangle area) are essential to making this area work.

DEVELOPMENT FRAMEWORK

If parcels are not assembled or coordinated in a fashion to facilitate rear access, if a development occupies the full Route 2 frontage or a significant portion thereof, and if a frontage road is instigated or imposed as a part of that plan, then the following attributes of a development plan should be instituted within a design guideline package:

• The frontage road should be one way east to accommodate the unconflicted stacking of vehicles exiting Route 2.

• Buildings should be built to a prescribed setback line out of an agreed to but broad palette of materials, and should place entries along the frontage. Loading docks and/ or service bays should not occur along the Route 2 frontage.

• The setback dimension should be determined by a combination of factors: landscaped buffer width, two lane minimum frontage road, suitable sidewalk, and consideration of overall site depth such that a marketable footprint can be obtained.

• Parking should be screened from Route 2 by buildings, or housed within a structure. The one way frontage system will require that parking on the northern end of the site be accessed from the wetlands side of the buildings.

• The wetlands should be used as an asset in site design, possibly with the road leading from the frontage road to the parking, forming an internal site 'gateway.' Building heights could be slightly higher abutting such a 'gateway.'

• Unless and until a frontage road is instituted, individual parcels fronting Route 2 should be permitted only a single curb cut, and adjacent properties in common ownership should be encouraged to cluster entries by providing an appropriate on-site circulation system.

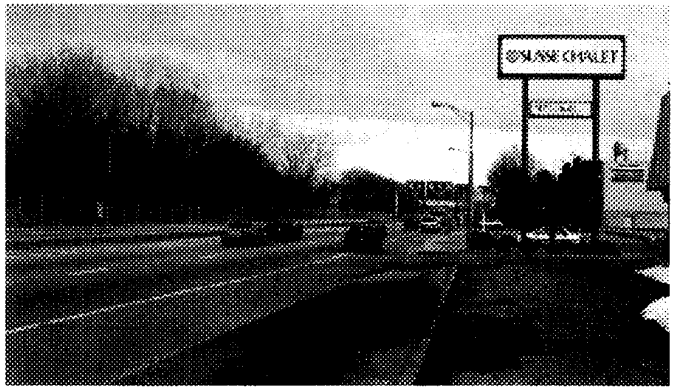
USE

Current zoning for office use is appropriate for this area, with the addition of allowing limited accessory retail uses. Commercial rezoning would congest the area, compromise MDC reservation lands and provide an inappropriate gateway to the city.

URBAN DESIGN CONCEPTS

As the primary entry to Cambridge from the northwest, this route establishes visual impressions of the city. Upgrading this image could occur through implementation of the access, frontage road, and development framework set forth above. In addition, the following actions are recommended:

- Establish a joint task force with Arlington to coordinate landscape, lighting and signage.
- Through the MDC, initiate and/or reinforce a consistent landscape treatment along this corridor from Arlington to the Fresh Pond Traffic circle at Alewife Brook Parkway and Concord Avenue.
- Upgrade the pedestrian bridge linking Arlington and Cambridge. Transform it into a festive and recognizable celebration of entry to the two cities.
- Provide special lighting and signage abutting the Cambridge side of Route 2 in proximity to frontage development and the pedestrian bridge. Engage the Arts Council in its design.
- Clean and enhance the vegetation surrounding Little Pond in Belmont so that it becomes a visual asset from the access ramps to Route 2. Replace chain link fencing as funding permits.



As Arthur D. Little expands and/or rebuilds its aging buildings, the same campus qualities that exist should govern its reconstruction with the following exceptions:

• The architecture should be sensitive to the setting rather than solely functional. It should also be of a consistent palette of materials.

• Buildings abutting Route 2 should recognize its presence and orient jointly to it and to internal campus spaces.

• Buildings abutting the Alewife Reservation should reflect its presence and integrate it as an asset into the design of the campus while not appropriating it from the general public.

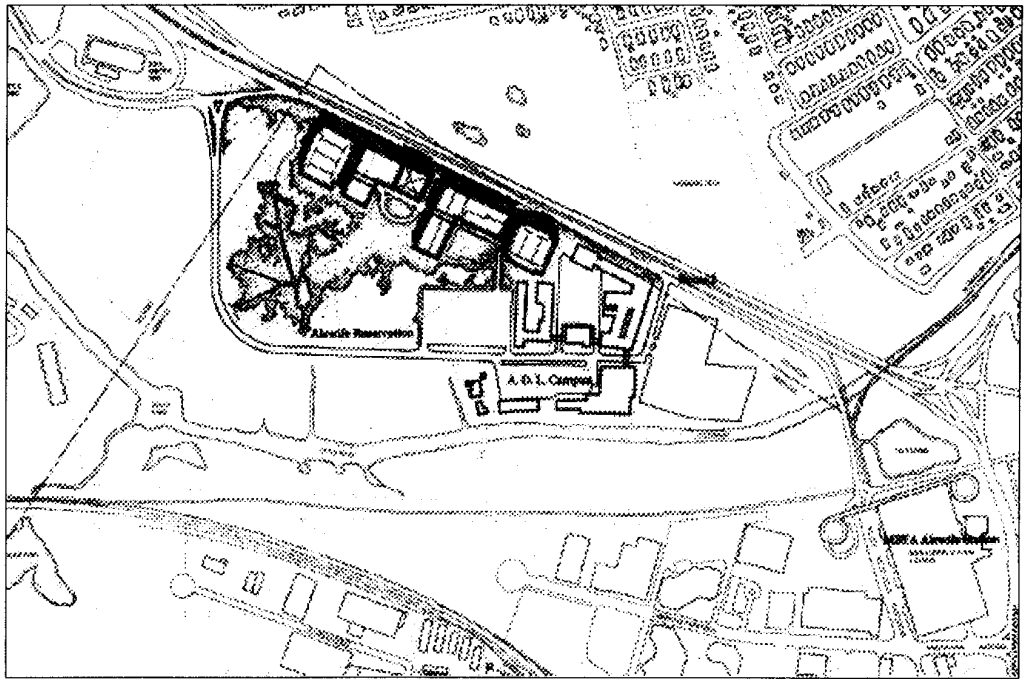
• Parking should be subservient to, not dominate public spaces and should generally not abut the Little River.

NATURAL RESOURCES

The unique aspects of the Alewife Reservation, its sensitive ecology and wetlands and its recreational amenities, require careful planning to ensure that enjoyment of the facility does not harm significant natural features. To achieve this, it is essential that the MDC develop a master plan for the Reservation and a specific management plan to identify and properly maintain those areas that need to be carefully preserved and where public access should be controlled.

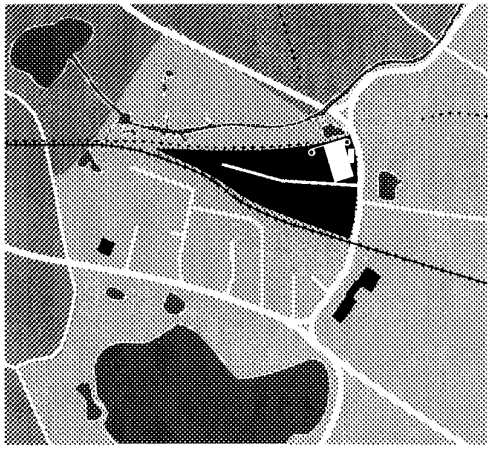
The master plan should also indicate those areas where more intensive and active public use is appropriate. One area where this may be possible is at the southeast corner of the Reservation near the Alewife MBTA station. This area, easily accessible to the public and less sensitive than others from an environmental perspective, provides an opportunity for more active, public use of the Reservation. Benches and tables might be located here to encourage people to stop and eat lunch or to sit and enjoy the view.

The Alewife Reservation master plan should also explore the siting of an interpretive center or museum within or near the Alewife Reservation. This type of facility would serve as an educational center for the local community and the region. A potential location to be considered is the former MDC skating rink, located in Belmont along the northwest edge of the Reservation near Little Pond. Reuse of this site as an Interpretive Center would also assist in meeting the goal for this area of upgrading the entryway into Cambridge.


A.D.L. Campus

AREA 2
THE TRIANGLE

The Triangle, the pie-shaped wedge of land between the MDC Reservation, the Fitchburg Main Line and Alewife Brook Parkway is home to the Alewife MBTA station, its associated parking garage and a series of mid-rise office buildings that generally align CambridgePark Drive. While not fully urban in character, the elements of a successful business park are in place and require reinforcement and better connections to abutting uses.



ACCESS AND LINKAGES

The Triangle and its abutting districts suffer from the lack of adequate connections from this transportation nexus to those business, shopping and recreational centers. The extension of CambridgePark Drive to Smith Place, the connection of the Triangle to the Fresh Pond Shopping Center via a pedestrian bridge over the tracks, and the inclusion of public connections from CambridgePark Drive to the Little River and the Reservation lands are all desirable objectives.

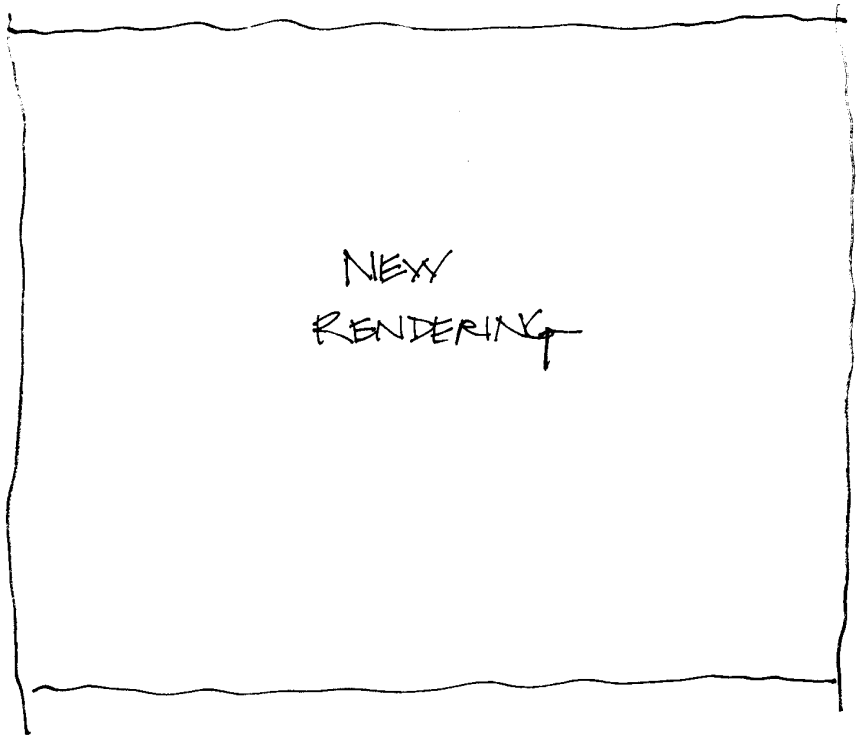
Linkages within the Triangle to required pedestrian and vehicular networks are in need of upgrade. Such networks include Linear Park which leads east and connects to Trolley Square in North Cambridge and Davis Square in Somerville, west to Belmont along the southern edge of the Alewife Reservation, and northwest through Arlington, Lexington and Bedford along the Minuteman Bikeway. Each of these trails is discontinuous through this district or in need of path separation from vehicular traffic and/or upgrade and/or signage. Safe and comfortable access from the North Cambridge neighborhood to the MBTA Station for both pedestrians and bicyclists is key to making the area work. For bicyclists, CambridgePark Drive should have bicycle lanes.

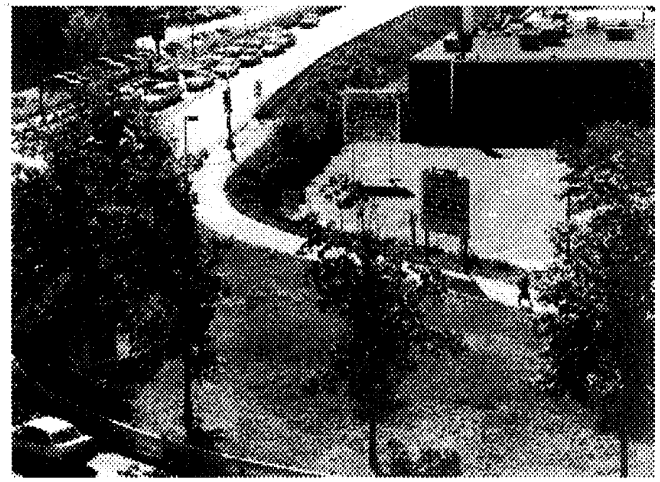
It is intended that a commuter rail station for the Fitchburg Main Line be located at Alewife to provide direct access to Alewife businesses from the western suburbs and from North Station. It is to be funded jointly by the MBTA (who will be responsible for rail alignment work) and by Spaulding & Slye (who will be responsible for station construction). Appropriately positioned, this station will not only be an asset to the area, it could provide a means of safe pedestrian crossing of the tracks. The commuter rail design should be both pedestrian- and bicycle-friendly in terms of access to the station, access to the trains, and bicycle parking.

DEVELOPMENT FRAMEWORK

Although there are several different property owners in the Triangle, the area is dominated by Spaulding and Slye, which controls the three office buildings built in the 1980s (100, 125, and 150 CambridgePark Drive). A substantial portion of their land is surface parking. In addition, they manage 5.7 acres of vacant land at the western end of the Triangle (also a triangular shape) which they will develop, although they currently have no specific plans for the immediate future for the site.

To the extent possible, future development should define Cambridge Park Drive with parking lots situated between or, preferably, behind buildings. Structured parking would be preferable to the current sea of surface parking. Building setbacks should be minimal, with landscaping but not so that the buildings become isolated from the street. Ground floors should be oriented to the pedestrian, with doors and windows and no blank facades.





A mixed-use development that would serve as a focal point is appropriate at the Aku-Aku site. Its design is pivotal as it will mark and serve as the entry to the business district.

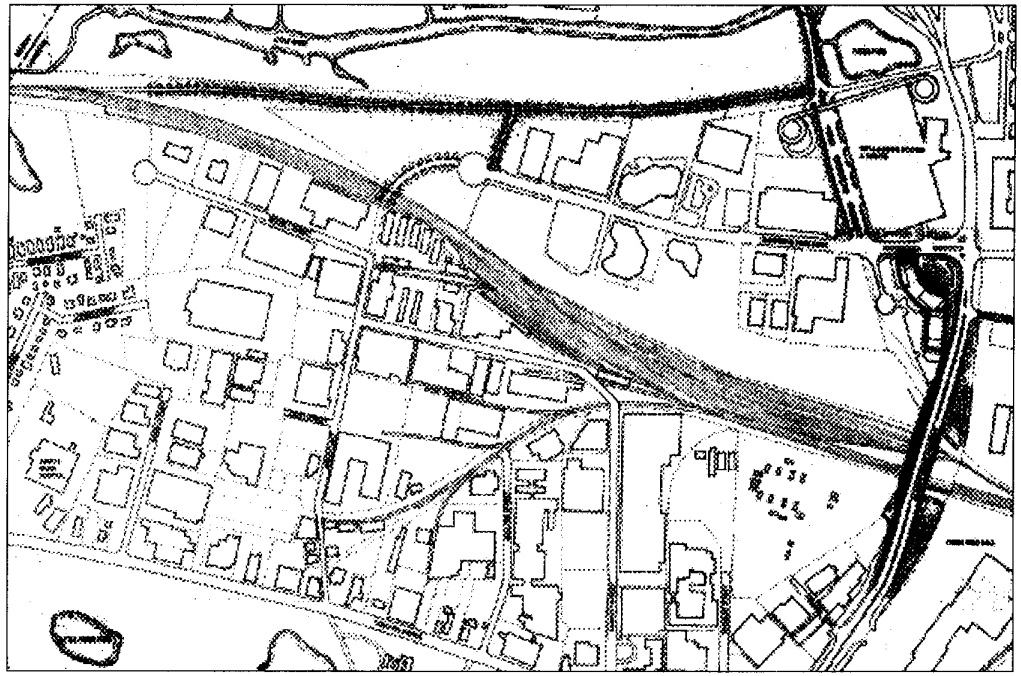
At the northern edge of the Triangle is the Alewife Reservation, onto which buildings currently turn their backs. This edge should be improved, both for existing development and for any future development. Debris should be cleaned, dumpsters screened, and fencing, if needed, upgraded. Pleasant and adequate pedestrian access to the Reservation should be provided where it is determined that public access is appropriate.

USE

The Triangle has been developing primarily as an office district, with some research and development (Genetics Institute) and ground floor accessory retail. This more intense development pattern is appropriate to the area, given its proximity to the MBTA station and the future commuter rail station. Other intensive uses, such as a hotel near the T station would also be appropriate.

Active ground floor retail use that is accessory in nature should be promoted; these uses would enliven the pedestrian environment along CambridgePark Drive. It should be clear that the intent is not to create a new retail district, nor to establish destination retail, but rather to create pockets of retail activity to provide services that can be used by office workers for whom it would be convenient to walk. Examples of appropriate retail uses are restaurants, dry cleaners, and newspaper/stationery stores.

A variety of use possibilities have been discussed for the end of the Triangle. These include office and service retail, as with the rest of the Triangle, but the creation of public open space and siting of the proposed nature interpretive center have also been proposed. Although the land is clearly in the private domain, incentives such as a transfer of development rights should be available to encourage direct public access to the Alewife Reservation, and additional open space in this area.



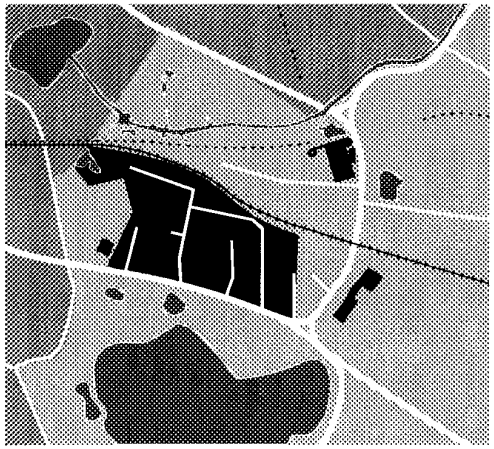
URBAN DESIGN CONCEPTS

NATURAL RESOURCES

The Triangle also connects to Jerry's Pond, an important open space and water resource, which should be upgraded, protected and maintained, if not by the private owner then through the intervention of public agencies. Public access to the site should be available, but limited to protect sensitive flora and fauna.

AREA 3
THE QUADRANGLE

This acreage, named after its approximate shape, abuts the Fresh Pond Reservation and Concord Avenue to the south and the Triangle and Fitchburg Main Line railroad tracks to the north. To the west lies the Cambridge Highlands residential community, to the east the rear of strip commercial frontage lots of the Alewife Brook Parkway. Zoned and always envisioned as a moderate-density light industrial area or office park, it has failed to fulfill that role because of both the lack of identity and of easy access from surrounding arterials.



ACCESS AND LINKAGES

Planning for improvements to the Quadrangle has heretofore hinged on its linkage to the Triangle via a continuation of CambridgePark Drive through to Smith Place. The Alewife Plan of 1979 proposed making Smith Place a widened boulevard with development arrayed along it in a semi-suburban setting. Both the linkage and form aspects of that plan are limited by current realities. Developed properties align a modest 30-40 foot right-of-way and, in several cases, are built out to the front property line. Street widening could only be done in these areas through eminent domain at significant public cost. The railroad, for safety and liability reasons, is loathe to permit an at-grade crossing at Smith, below grade passage is limited by an elevated water table, and above grade ramps and bridges would have tremendous visual impact and are opposed by the landholder to the immediate north whose abutting parcel would be impacted by such a solution. This connection remains desirable. It would not only open the Quadrangle to direct access from Route 2, but would consequently discourage current patterns of egress west along Concord Avenue through Belmont. Negotiations with the railroad, funding agencies, and abutting landowners should continue. Access directly from the Quadrangle into the Cambridge Highlands neighborhood should be precluded.

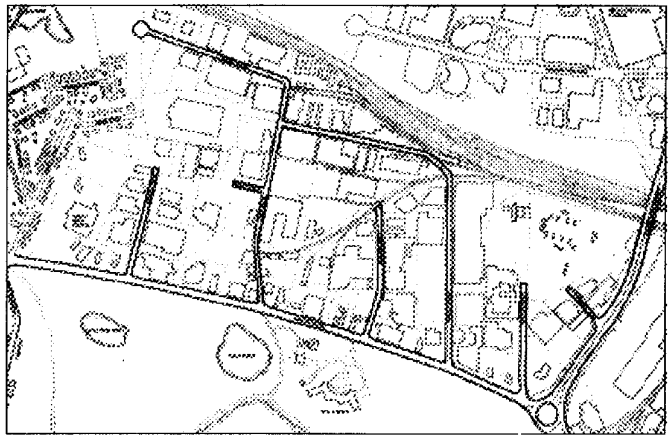
The Quadrangle would benefit from its proximity to the Fresh Pond Reservation if the following four conditions prevailed:

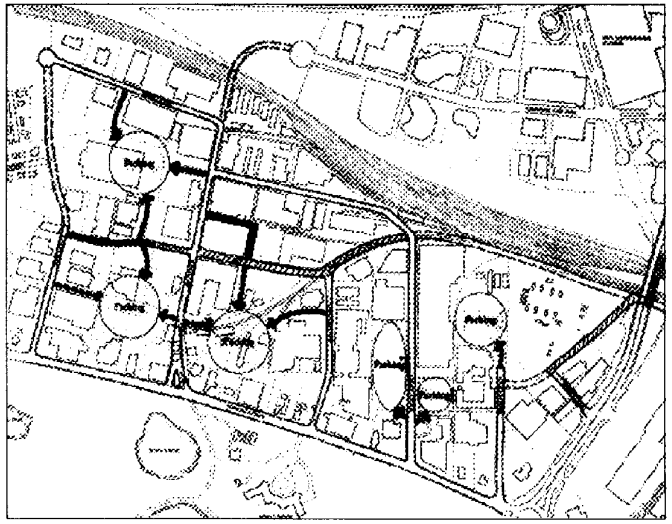
❶ the Reservation became an asset to its neighbors rather than a detriment through selective landscape maintenance and the provision of inviting fencing;

❷ provision of a welcoming gate to the Reservation and Black's Nook at the foot of Smith Place;

❸ the general upgrading of the north side of Concord Avenue through landscaping and the enforcement of design guidelines; and

❹ the widening/straightening of Smith Place at its intersection with Concord.





Upgrading Concord Avenue is recommended as a part of this plan, and should include bicycle lanes or tracks. The existing narrow and angled access to Smith Place poses a legal turning hazard for trucks and needs to be straightened and widened. A perpendicular alignment with Smith Place would necessitate extensive takings, but a more modest taking would provide both the required turning movements and an oasis of green marking an identity for the Quadrangle.

DEVELOPMENT FRAMEWORK

The Quadrangle is now composed of diverse, primarily light industrial, uses aligned along streets that rarely connect. Buildings form no clear relationship to the streets. Parking occurs randomly in front of, beside, and behind structures which consequently seem to float in disconnected parking lots along streets that lead nowhere.

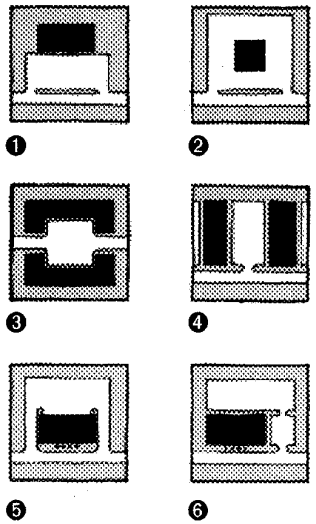
The simplest way of bringing a degree of order to the area is to clarify the street system. This can be done, in steps, fairly easily through the use of public rights-of-way. The resulting pattern provides a rough grid surrounding sizeable blocks. These streets are termed Primary Streets. Completion of the system would require nominal new mappings and acquisition.

USE

The Quadrangle remains an important area for future economic growth. The primary uses envisioned for this area are ones that would build upon its strengths and those of Cambridge in general, while also diversifying the economic base and its concomitant jobs. Research and development, light industry, manufacturing, start-up and emerging technology industries are the keys to this mix; some additional office could also be allowed, preferably at the edges toward Concord Avenue and east, where office development has already been focused. The office uses which have been successful at the eastern end of this district have done so through relative seclusion into isolated enclaves. If the area as a whole is to prosper it will require the gradual transformation of use from heavy industry, research and development, pilot manufacturing and light industrial activity with a related service retail component. Major retail is not appropriate, and any housing should be sited directly along Concord Avenue.

URBAN DESIGN CONCEPTS

A critical aspect of site planning in the area is how parking is situated on building lots. There are six ways in which parking can relate to buildings on a site: ❶ parking can occur in front of buildings — between buildings and the street, as in strip commercial settings, ❷ parking can surround buildings, ❸ parking can occur in side yards between structures, ❹ buildings can surround parking lots in courtyard fashion — which at a large scale is essentially what the Abt Associates complex does, ❺ parking can occur behind structures, and



❻ parking for employees can occur behind structures with guest parking in the side yard.

Today, all of these apply to the Quadrangle, resulting in the lack of a sense of place. A very simple rule can clarify the relationship between parking, buildings, and streets on these large blocks: No parking shall occur between buildings and the Primary Street(s) they front, and all buildings must be built within a specified distance of the Primary Street and provide a legible primary entry to the structure fronting that street. Visitor parking can be dealt with by permitting it in one of the two side yards at widths not to exceed 64 feet and prohibiting it from extending closer to the street than the front face of the building. Through these simple devices a consistent and legible pattern of streets, buildings, parking, and entry can be created that, while essentially suburban in function and tailored to the needs of individual parcel developers, is reminiscent of historic Cambridge urban patterns of development.

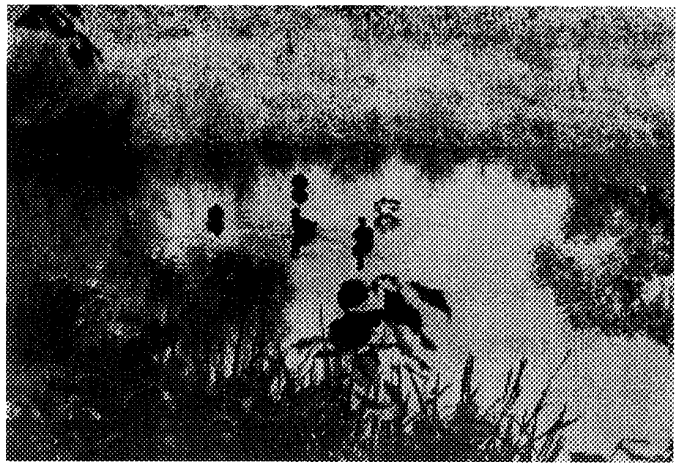
In addition to the emerging pattern created by streets and building, the area would prosper from some further identity in the form of open space. Open spaces tied to private sector development in the form of mandated setbacks do not feel like a part of the public domain. They are perceived as, and are, yards that belong to the private sector developments to which they are appended. Ideally, an open space within the Quadrangle would be located on the most important street and would take the form of a public square surrounded by secondary streets. To acquire such a square at nominal or no cost requires positioning it in a location such that a single property owner, or a consortium of property owners would benefit from the sites they might hold overlooking the square and/or from incentives the city might offer to the provider of such an amenity. The financial benefits of its positioning must offset the transfer of the land asset. Permitting the transfer of development rights from a deeded parcel may be part of an incentive package that allows this to occur in the position shown, where a single owner today surrounds three sides of the created square.

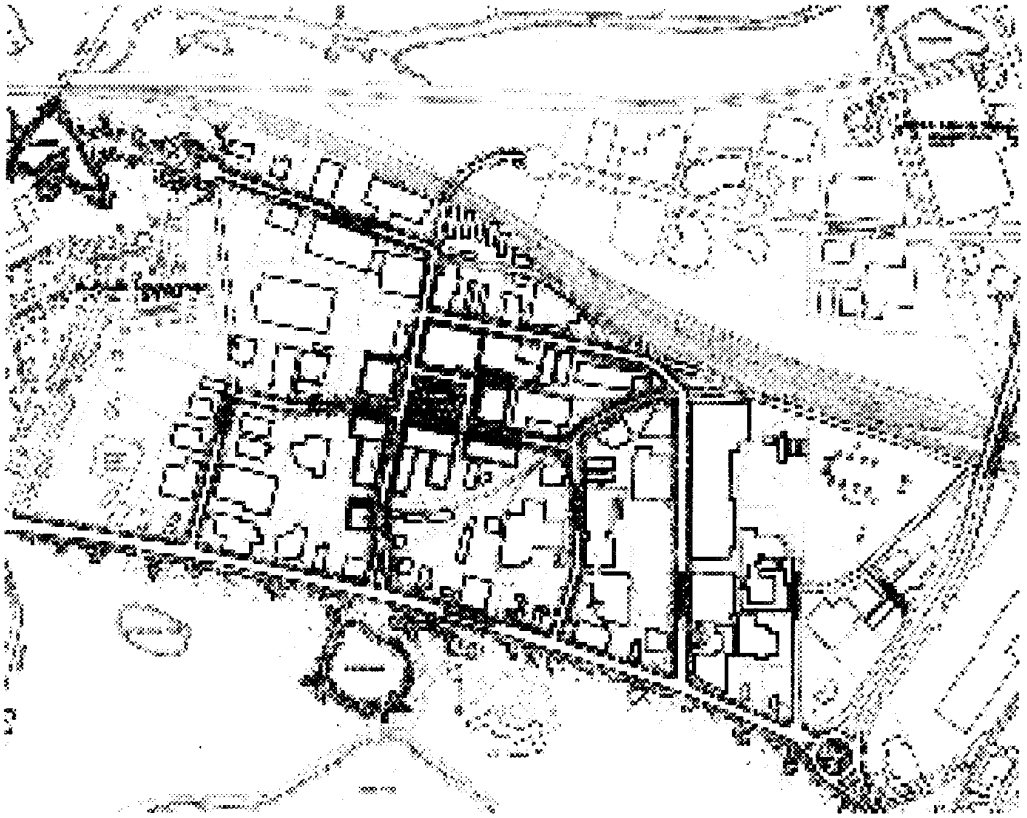
Even privately owned industrial and business parks today have design covenants tied to the conveyance of property. Because the Quadrangle is under multiple ownership, there is no private entity capable of imposing any architectural standards which will protect new investment and maintain a consistent scale and character. While design guidelines for such parks need not be sophisticated nor complex, they should establish minimum performance standards and developer submittals should be subject to design review. More specific design guidelines are identified in the implementation section of this plan.

NATURAL RESOURCES

Blair Pond is a neighborhood asset. A master plan is currently being created by the MDC and the Friends of Blair Pond. While Blair Pond should be accessible from the Quadrangle and part of the system of open spaces within the Alewife area, it should not be targeted for heavy recreational use by the general public.

The City's Fresh Pond Management Group is currently addressing selective landscape maintenance and seems receptive to the provision of fencing and a gate at Smith Place, subject to the respectful and limited use of Black's Nook which serves as an environmental and educational resource for school children throughout the city.





AREA 4
FRESH POND COMMERCIAL AREA

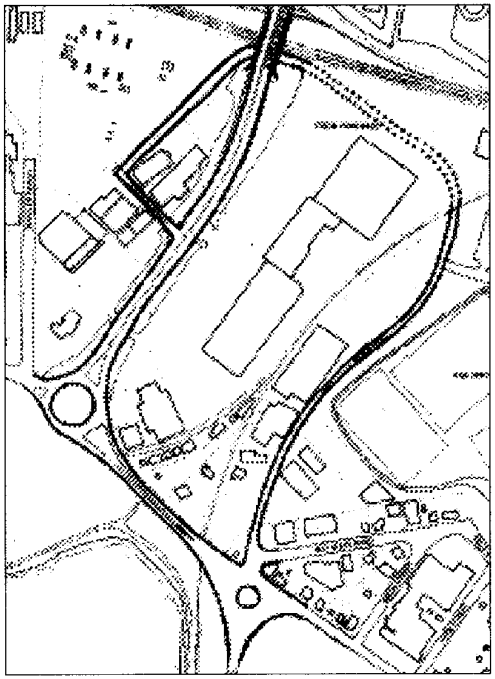
A large area, this district is essentially defined by those commercial parcels abutting Alewife Brook Parkway as it transitions from a limited access highway to a residential boulevard (Fresh Pond Parkway) south of Huron Avenue. For planning purposes, it can be thought of in two segments, the Alewife Brook Parkway leg where it bisects twin commercial areas between the Fitchburg Main Line Railroad Bridge and the Alewife Brook Parkway/Concord Avenue Rotary, and the Fresh Pond Parkway where it abuts the Fresh Pond Reservation to its south until it leaves the Reservation at Huron Avenue. This plan deals only limitedly with the Fresh Pond Parkway section of the road - to that point where Concord Avenue splits off eastward- but its principles pertain to the full length of that section.

There is another part of this district that tucks in behind the Fresh Pond Shopping Center, fronting Danehy Park and extending along New Street and Bay State Road. Bisected from the shopping center by seldom-used railroad tracks, it transitions from light industrial and distribution uses along New Street to nurseries, health clubs, small offices and outmoded self-storage warehousing to residential neighborhoods along Bay State Road. Zoned IA-1, this latter district provides a type of use increasingly rare in Cambridge, yet currently healthy and devoid of pressures from higher rent uses in this locale.

ACCESS AND LINKAGES

Access from the Alewife Brook and Fresh Pond Parkways to fronting commercial properties has long stood as a key area of conflict within this district, pitting the demand for increasing curb cuts by property owners against the safety and volume needs of through traffic to limit those curb cuts. Left-hand turns have tied up traffic despite signage prohibiting them in much of the area. The two rotaries at Alewife Brook Parkway/Concord Avenue and Fresh Pond Parkway/Concord Avenue, are difficult to navigate for all forms of traffic, including motorists, pedestrians and bicyclists.

The proposed MDC improvements to the Alewife Brook Parkway will signify a large step in the resolution of these problems in the stretch of Alewife Brook Parkway from Rindge Ave. to the Alewife Brook Parkway/Concord Avenue rotary. A center median will prevent illegal left-hand turns and a new road will route south bound traffic destined for the Fresh Pond Shopping Center along Terminal Road behind the frontage parcels along a new right-of-way, and under a reconstructed bridge where it will emerge in the shopping center parking lot. The connection through this parking lot to New Street will continue to pose a problem as it represents a short cut for knowledgeable local drivers who often cut diagonally through the lot. It is recommended that the shopping center developers work with the city to align and landscape these connections so that through traffic does not pose a danger to cars or pedestrians destined for the shopping center proper or to cars trying to emerge from designated parking spaces.



The MDC improvements will not resolve the very difficult pedestrian crossing problems at two rotaries nor the turning or curb cut issues south and east of this circle. It is recommended that these be addressed, and that the MDC and City participate actively in a buffering, access upgrade as far south as Huron Avenue.

This district also abuts and provides connections to Danehy Park, the Fresh Pond Reservation and the bikeway and pedestrian systems which crisscross the entire plan area. The following linkages need to be examined:

- Linkages to, through, and abutting pedestrian and bicycle networks.
- Increased connections from surrounding neighborhoods to Danehy Park while maintaining security.
- The possibility of a future pedestrian and/or vehicular linkage from this district to the Quadrangle paralleling the Fitchburg Mainline railroad right-of-way.
- Safe passage for bicyclists and pedestrians at the rotaries and across Concord and along both the Fresh Pond Reservation and east side of the Parkway as far south as Huron Avenue.

DEVELOPMENT FRAMEWORK

The future of this area is considered from both the long-term and the short- to intermediate-term perspectives, with emphasis on the latter. It is anticipated that long-term redevelopment of the sites will likely involve razing the current buildings and reconfiguring building locations, which is desirable. Buildings should front roads, with parking hidden behind buildings or in structures, and landscaping elements should be highlighted. Mixed-use development should be encouraged, with consideration given to a housing component east of Alewife Brook Parkway. Any new development of this scale should undergo a mandatory design review process.

USE

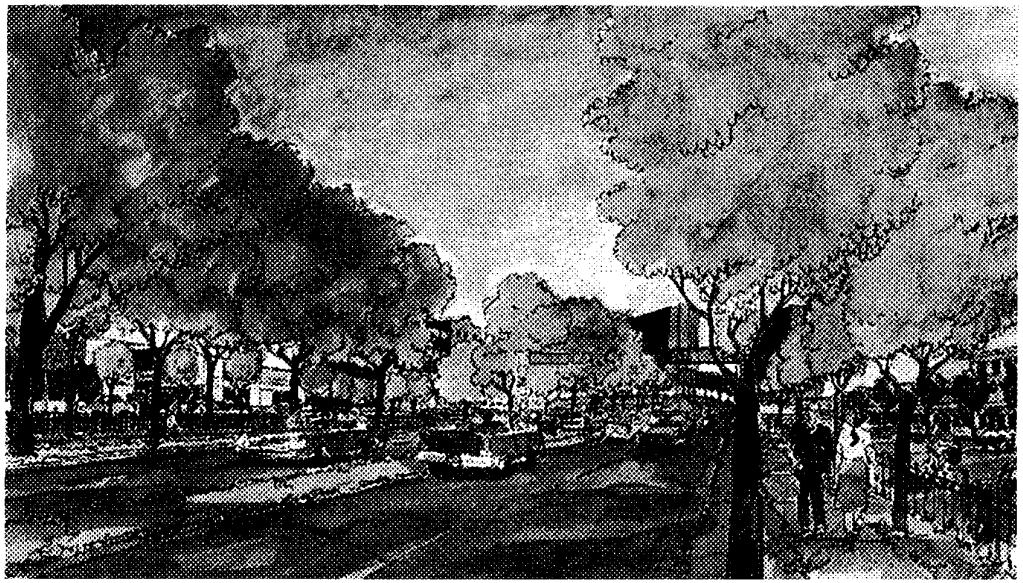
Commercial use along this route is a fact of life and while significant turnover and mid-level rents mark the shopping center, the location will realistically continue to have commercial appeal. The plan discourages larger more intensive commercial uses that would generate significant volumes of traffic and encourages continued mixed-use development with an office component, particularly west of Alewife Brook Parkway. The back commercial/industrial uses along New Street may eventually transition to office space, given the overlook of Danehy Park, but the narrow depth of lot, railroad frontage to the rear, and adjacency to the loading dock area of the shopping center make them poor candidates for housing. Those parcels surrounding Bay State Road could clearly attach themselves to the Field Street neighborhood while taking full advantage of the accessibility of Danehy Park. This conversion is encouraged with the exception of those parcels directly fronting Concord Avenue.

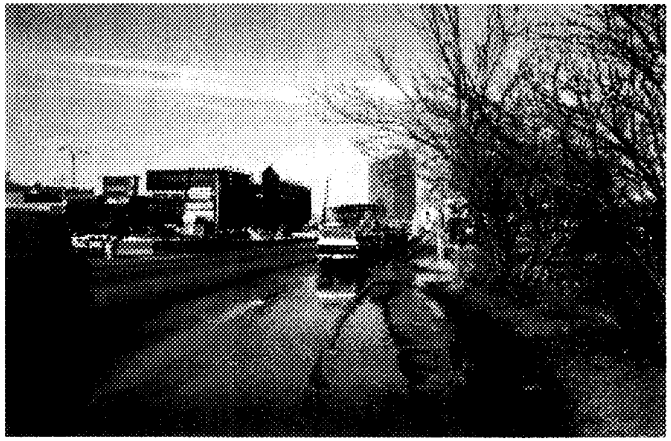
URBAN DESIGN CONCEPTS

Of equal concern with the access problems of this area is the sheer unattractiveness of the architecture, siting, parking, and signage. Much of it represents the worst of American strip commercial architecture and planning. Sign controls, including billboards, should be enforced and extended within the prevailing statutes of Massachusetts enabling law. Where those provisions fall short of mandated and retroactive sign and buffering upgrading, a local home rule initiative should be considered to place Cambridge on equal footing with a substantial number of state and local initiatives around the country.

Stores will often not want to decrease gross parking to provide buffering. In many communities, that is the cost of doing business in their city. The plan takes the position that citizens and businesses alike will prosper in the long-term from such initiatives, and that the city as a whole will be enhanced by a more attractive gateway from the northwest.

It is also recommended that as parcels are redeveloped, buildings are moved closer to the street and parking is relocated, in whole or part, behind these structures. The extension of design guidelines and review to cover all or most parcels along this route is recommended. Such a program is already in place, it merely needs refinement.



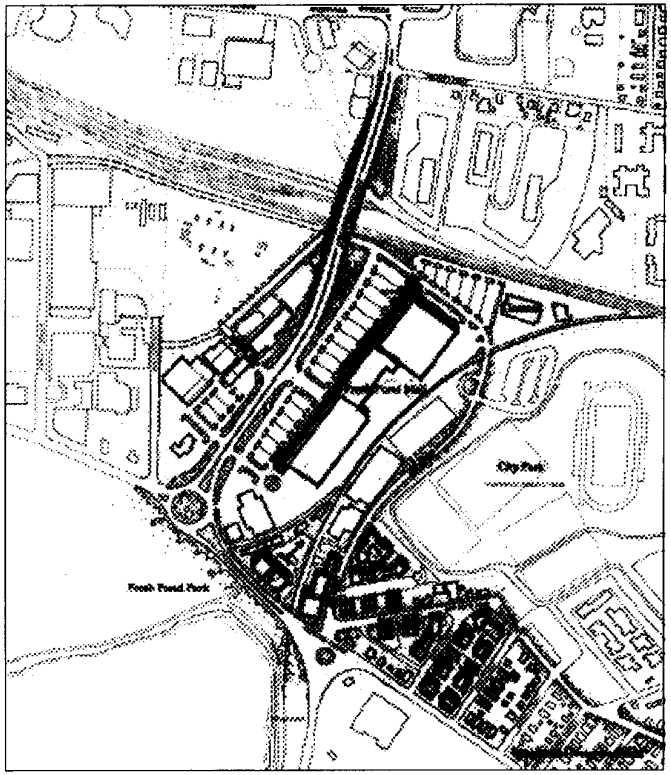


These guidelines should be extended to include architectural as well as siting, signage and buffering review. While architectural upgrading of existing structures is at the initiative of local owners, the retrofitting of 1950s and 1960s shopping centers is occurring all over the country to bring them into a more advantageous position with their newer competitors. An education program illustrating some of these precedents is recommended.

Along Bay State Road, zoned densities, while low, exceed the built densities of the abutting neighborhood. These new densities are acceptable and perhaps necessary given land and construction costs, but height, setbacks and general form requirements should reflect the characteristics of the existing housing stock. On the northern frontage of Bay State Road, abutting Danehy Park, increased residential densities might be permitted as an incentive to encourage housing if heights remain 45 feet or less.

Consistent with the improved access program underway by the MDC, their relandscaping of the Alewife Brook Parkway will mark a major improvement in the aesthetic vehicular experience of traversing this area. Where there is room to plant a double row of trees alongside the Parkway, it is recommended. Likewise, low fencing or shrubbery should help screen the expanse of parking lots from the road. The MDC is urged to continue this landscape program south to Huron Avenue, particularly in those areas of abutting commercial usage. Pedestrian zones along this edge have been obscured and need re-establishment. The narrowness of the public right-of-way in this area is recognized and public-private partnerships may have to be established to afford substantive improvements.

As in the Quadrangle, the Fresh Pond Reservation needs upgrading along Concord Avenue and the Parkway edge such that it becomes an asset to the entry experience to the city.


City Park

5 IMPLEMENTATION

The successful implementation of the Alewife master plan will require numerous resources and approaches and the commitment of both the public and private sectors. The following implementation plan describes the variety of strategies and mechanisms that will need to be employed to achieve the plan's goals. The complexity of the implementation plan and the need to coordinate with federal and state funding agencies make it difficult to predict, with any accuracy, when implementation will be fully realized. However, as indicated in implementation phasing, there are actions the City can begin to work on immediately to advance the plan, together with a logical sequencing of the implementation strategies.

ENVIRONMENT AND OPEN SPACE

Open space implementation is approached on two levels; area-wide recommendations are made for how additional open space can be promoted, and area-specific plans are suggested for enhancing existing open space resources. It is anticipated that new open space and creation of a landscaped pedestrian network in Alewife will result from a combination of public and private sector initiatives.

AREA-WIDE IMPLEMENTATION TOOLS

Public Funding Sources

At the time of this writing, there is unfortunately not a great deal of public money dedicated to open space acquisition and construction. There are some state and federal programs in place to which we can look, particularly with the hope of finding greater possibilities in the years to come.

❶ Urban Self-Help Program. This program, administered through the Massachusetts Department of Environmental Affairs, provides funds for open space acquisition.

❷ Land and Water Conservation Fund. The Land and Water Conservation Fund Program provides money for open space construction. The Program is funded with federal dollars and is administered by the Massachusetts Department of Environmental Affairs.

❸ Urban Parks and Recreation Recovery Program. This program also provides funds for park construction and is administered by the National Park Service.

❹ ISTEA. There may be some possibility to finance open space improvements of trails and paths, acquisition of scenic easements and scenic sites, and landscaping and other scenic beautification through the federal Intermodal Surface Transportation Efficiency Act of 1991.

Zoning mechanisms

❶ Requirements. New construction can be required to have a certain amount of open space on the property. This would be particularly relevant for setbacks and portions of the lots that are not built on, in that there can be requirements for landscaping, etc.

❷ Incentives. Zoning incentives can also be used to encourage property owners to develop public open space areas, or allow property easements. For example, additional FAR may be allowed for certain public open space donations or development. Another mechanism is the transfer of development rights, whereby a property owner donates a portion of land to the City but can maintain the "development rights" of that parcel and transfer them to another parcel or portion of property. These incentives could be used for pocket parks, open sitting areas, or open space easements that connect larger existing open space areas together (e.g. from Blair Pond to the Alewife Reservation).

❸ Design Guidelines. Design guidelines can also be used as motivation to enhance private property, particularly with green edges and additional landscaping.

Public/Private partnerships

Public/private partnerships have proved very successful in other areas of Cambridge (e.g. East Cambridge Riverfront) and in other cities to achieve substantial open space improvements.

AREA SPECIFIC PLANS

Route 2/Alewife Reservation

The MDC has indicated that they will create a major new master plan for the Alewife Reservation. The City will support and participate in this process, maintaining particular attention to the Alewife Steering Committee's open space and environmental goals. Part of the master plan process should be investigating the feasibility and possible siting of an Interpretive Center.

Triangle

❶ Reservation edge. Upgrading the reservation edge should be addressed both through the MDC master planning process and by developing design guidelines and zoning tools to ensure that future additions or changes to the built environment strengthen the edge.

❷ Jerry's Pond. The current owner/developer has committed to upgrading the site. Should this not occur, it may be possible for the MDC to aquire and maintain Jerry's Pond (provided there are available funds and there is a commitment for maintenance).

Quadrangle

❶ Blair Pond. Blair Pond should be rezoned with an Open Space designation to reflect its current and future status as a significant open space resource. The City supports and encourages the ongoing activities of the MDC, the Cambridge Highlands Neighborhood, and the Friends of Blair Pond groups in their efforts to clean and upgrade this important resource. In 1993 the MDC received an $80,000 grant to conduct a complete study of Blair Pond and the related Wellington Brook; some of the funds will also be used for site work needed to protect the pond from further degradation.

❷ Michael J. Rafferty Playground. As the primary local recreational area for the Cambridge Highlands Neighborhood, Rafferty Playground should be rezoned to Open Space. Rehabilitation of the facility is scheduled for 1994, and is funded through the Cambridge Highlands Stabilization Program.

❸ Fresh Pond. The Community Development Department will work with the Water Department and other members of the Fresh Pond Management Group to develop the Fresh Pond Master Plan to improve and enhance Fresh Pond Reservoir. This will involve coordinating the upgrading and clearing of the edge, including new fencing, especially along Concord Ave., and developing a plan and capital improvement strategy to provide pedestrian and/or visual access to the Fresh Pond Reservation at Smith Place.

❹ New Open Space. Opportunities for acquisition of new public open space will be sought in the Quadrangle and throughout the entire Alewife area. Guidelines will be developed to determine the appropriate size, type and character of any new open space. Possible tools to acquire new public open space include a zoning mechanism to allow for a transfer of development rights to acquire new open space, public/private partnerships, and public acquisition.

TRANSPORTATION

The transportation improvement program for the Alewife Area will focus on reducing automobile use and conversely promoting alternatives to the single occupant vehicle as mandated by the requirements of the Cambridge Vehicle Trip Reduction Ordinance adopted by the City Council in June of 1992. Thus, roadway improvements are restricted to those which will improve safety, provide for better transit and shuttle bus connections, improve emergency vehicle access, and allow for better bicycle and pedestrian circulation.

ROADWAY IMPROVEMENTS BY PRIORITY

❶ Reconstruct the Smith Place/Concord Avenue Intersection. Upgrading this substandard and dangerous intersection has the highest priority. The right-of-way for Smith Place is only 33 feet wide at this unsignalized intersection and connects with Concord Avenue at an acute angle resulting in very difficult turning movements, especially for trucks.

❷ Eliminate the dead end roadways in the Quadrangle. New roads should be built to connect Moulton Street and Spinelli Place to Smith Place in order to eliminate the "dead ends" and improve emergency vehicle access. The right-of-way for the Moulton Street connection now exists to be used as Wilson Road.

❸ Rebuild the two Concord Avenue Rotaries. The MDC should replace the rotaries with signalized intersections that would provide safer bicycle and pedestrian crossings of Concord Avenue.

❹ Reconstruct Concord Avenue from Alewife Brook Parkway to the Belmont town line. This deteriorating roadway should be rebuilt in a way that will improve bicycle and pedestrian safety as well as enhance the visual image of the area.

❺ Rebuild Fawcett Street from Smith Place to the abandoned railroad spur and provide curbing and sidewalks. These improvements are required for safe pedestrian circulation.

❻ Complete CambridgePark Drive. When CambridgePark Drive was constructed a decade ago, the required right-of-way was donated to the city except for one small stretch near the Alewife MBTA Station. The city has since acquired this land which now enables the roadway to be completed.

❼ Preserve a right-of-way to connect Moulton Street to the new roadway under the Alewife Brook Parkway Truss Bridge. Although not critical at this time, every effort should be made to establish and preserve this right-of-way for a future connection from the Quadrangle to the Fresh Pond Shopping Area. This would remove local traffic from the MDC's Parkway System.

❽ Coordinate signal timing between MDC owned roads such as Alewife Brook Parkway and City owned roads such as Concord Avenue. The City and the MDC should work together to coordinate all traffic signals along Alewife Brook Parkway in order to organize traffic flow in a manner consistent with the parkway character of the corridor while at the same time recognizing the need for access to the Alewife area.

TRANSIT IMPROVEMENTS AND PROMOTION OF NEW TRANSPORTATION MODES

In order to carry out the transit improvements and encourage alternative fuel vehicles as outlined in the Transportation Recommendations, the following should be done:

❶ The City should pursue funding in order to create a link between Smith Place and CambridgePark Drive across the Fitchburg Mainline Railroad right-of-way.

❷ The City should work together with public and private entities to create a regular shuttle bus service connecting primary destination points in the Alewife Area.

❸ The MBTA should expand and improve the feeder bus network to the Alewife Station.

❹ The MBTA and the MHD should construct parking facilities along Route 128 and beyond with shuttle buses running to Alewife Stations.

❺ The City should work with the MBTA and Spaulding and Slye, Inc. to ensure construction of the new commuter rail station. Due to the MBTA's concerns with the cost of the facility and competition from other projects for limited public dollars, the commuter rail station is not currently a high priority on the MBTA project list. The City will need to play an advocacy and coordination role to move this important project forward in the future.

❻ The City should investigate how electric and other alternative fuel vehicles can be accommodated and encouraged for commuter and intracity transportation.

TRANSPORTATION DEMAND MANAGEMENT

Each employer in the Alewife area should be encouraged to implement all or at least some of the following vehicle trip reduction techniques:

❶ Join with other employers to form a Transportation Management Association to implement traffic mitigation measures collectively.

❷ Promote the use of public transportation by providing up to date maps, schedules and transit information, establishing an MBTA Pass sales office, subsidizing employee "T" Passes, and making reference to transit facilities and proximity in appropriate marketing and advertising materials.

❸ Utilize a computer based ride sharing program to match employees for car and van pools, collect and disseminate ride sharing information, and share information with other organizations and companies where possible.

❹ Encourage staggered or flexible work hours for employees.

❺ Establish parking management techniques such as providing preferential parking spaces and reduced rates for van and car pools.

❻ Consider the joint use of parking facilities to maximize the effectiveness of parking management programs.

❼ Operate a shuttle system or join with and expand an existing system, e.g. CambridgeSide Galleria, to serve and make public transit more accessible.

❽ Provide sufficient covered and secure bicycle racks.

❾ Consider cooperating to provide innovative services, such as day care, courier and copy services, shower and locker room facilities, and shuttles to airports.

⑩ Work with the City's Transportation Demand Manager, operating out of the Cambridge Environmental Program, to facilitate the implementation of a program for Alewife.

BICYCLE/PEDESTRIAN PROGRAM

The implementation program for bicycle and pedestrian improvements in Alewife falls under two general categories, the first being the city-wide Bicycle/Pedestrian Mobility Program and the second being specific improvements for the Alewife area.

Bicycle/Pedestrian Mobility Program

The 1992 Vehicle Trip Reduction Ordinance established several measures designed to reduce the number of single-occupancy automobile trips taken in Cambridge and to promote other forms of transportation, including walking and bicycling. Elements of the program include designating a City Bicycle/Pedestrian Mobility Coordinator and a Bicycle/Pedestrian work program, components of which are: development of a Cambridge Bicycle Master Plan, development of a Cambridge Pedestrian Master Plan, development and evaluation of recommendations for a regional network of bicycle paths and bicycle priority streets favoring both bicycles and pedestrians, consultation with Cambridge residents, businesses, institutions and property owners, funding of bicycle amenities and storage facilities, funding for pedestrian amenities, and provision of bicycles for use by the City Police's and Traffic and Parking Departments.

There is also a city Bicycle Committee that comprises Cambridge citizens and representatives from various City departments, which is working to implement the Bicycle program.

Work that is underway or planned for Alewife includes:

❶ Bicycle parking facilities. The Bicycle Coordinator and the Committee have selected appropriate bicycle parking facilities and set standards for the placement of those facilities. They are also currently creating a plan for desired placement areas throughout the City, some of which will be located in the Alewife area.

❷ Routes. There are several existing or designated bicycle paths and routes which are either in or access the Alewife area, but do not necessarily connect with each other, and therefore are incomplete and represent a lost opportunity. Specifically in the Alewife area proper, the Minuteman Bikeway, Linear Park, the Fitchburg Freight Track(along the southern portion of the Alewife Reservation), and the soon-to-be constructed bicycle path from Rindge Ave. to the Concord Ave. rotary along Alewife Brook Parkway all represent significant facilities. These do not connect with one another. Important facilities nearby include Fresh Pond Reservoir and Danehy Park. The Committee is working with relevant public entities to make these improvements and connections.

Funding sources for the implementation of the bicycle/pedestrian elements of the Alewife Master Plan are being investigated. The federal Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) holds promise, but is more likely to be accessed in the longer term. Some improvements will be made by the private sector as redevelopment takes place, and improvements to sidewalks and premises are made. The Bicycle/Pedestrian Program itself has a small budget, which may be used to leverage other larger funding sources.

Physical Improvements in Alewife

❶ Overlay District/Urban Design. As part of the new overlay district, new and renovated buildings will have certain urban design requirements. These will include requirements for improved pedestrian facilities, e.g. sidewalks, landscaping, lighting, etc. If a project involves any street improvements, requirements as to bicycle-friendly design will also be made.

The new overlay district also proposes that the transfer of development rights zoning tool be used as an incentive to gain additional public open space; this tool can also be used to gain rights-of-way for bicycle and pedestrian access through otherwise private property (e.g. in order to access the Alewife Reservation more directly). Public open space facilities are also considered a major pedestrian amenity. Other creative proposals should also be encouraged and considered by the reviewing board.

❷ Bicycle parking facilities. Under the current zoning guidelines, when a new automobile parking lot or structure is built, bicycle parking facilities are required at a ratio of one bicycle space per ten car spaces. Proposed is that bicycle parking facilities be approved by the Bicycle/Pedestrian Coordinator regarding type and placement of the racks.

❸ Review process and standards for new roads. A process for reviewing new road projects in terms of their suitability for bicycling and pedestrian facilities is being established for the City. Any new projects will be reviewed by the Bicycle Committee and the Bicycle/Pedestrian Coordinator. The Committee and the Coordinator are looking at appropriate standards for bicycle and pedestrian facilities for new roads.

❹ Minuteman-Charles River Connector. Under ISTEA, funding was established to create a bicycle connection from the Minuteman Bikeway to the Paul Dudley White bicycle path along the Charles River. Responsibility for this project rests with the Massachusetts Highway Department, and is in the study phase. While the exact route has not been established, it is anticipated that this will traverse the Alewife area and will provide greatly improved conditions for bicyclists.

❺ Alewife Brook Parkway/Truss Bridge Replacement. In the summer of 1993, the MDC and Mass. Highway Department began major improvements to Alewife Brook Parkway between Rindge Ave. and the Alewife Brook Parkway/Concord Ave. rotary (at the Ground Round restaurant) that will include an entire replacement of the existing truss bridge. The new road will have wide sidewalks, bicycle travel lanes, a landscaped median, and major landscaping along the edges of the parkway. These changes represent major improvements for bicycles and pedestrians, and should be continued along the length of Alewife Brook Parkway.

HOUSING

Opportunities for new housing are very limited, due to the constraints of existing land uses, other goals of the Alewife Master plan, and availability of locations appropriate for housing. However, a few areas, located along Concord Avenue both east and west of Fresh Pond Parkway, do provide potential for new housing in the future. Because of the limitations within the study area and the ideal of developing housing by expanding existing residential areas, sites along the outskirts of the study area are identified for further analysis. As all the sites identified for potential housing development are privately owned, it is anticipated that any future housing development will be undertaken by the private sector.

Zoning and urban design guidelines are the implementation tools proposed to achieve housing of a scale and character that will strengthen and complement the existing residential edges.

STUDY AREA SITES

The areas that appear to be the most appropriate within the study area for future housing development are along the Concord Avenue edge (west of Fresh Pond Parkway) and, for the longer term, at the Fresh Pond Shopping Center site.

Concord Avenue edge (west of Fresh Pond Parkway)

This stretch of land, located along Concord Avenue directly across from the Fresh Pond Reservation, includes a mix of housing, office and commercial uses. This mix is appropriate. Additional infill housing would build upon the residential character of the Cambridge Highlands neighborhood. Institutional uses, such as a continuing care retirement community or a nursing home, seem appropriate for the Sancta Maria Hospital site. Such uses would serve an important community need and act as an appropriate transition between the Highlands and new development along Concord Avenue and in the Quadrangle.

The current Office 2 zoning designation allows for housing by special permit; in fact a special permit to build 32 units of housing on Concord Avenue, across from Neville Manor, was recently renewed by the Planning Board. The special permit process will ensure that new projects reflect the urban design guidelines for the area and improve the entryway into the city from Belmont.

Fresh Pond Commercial Area

This area is currently used as retail and commercial, although housing is a permitted use. In the longer-term, the Fresh Pond Shopping Center site is likely to redevelop in a significant fashion, and at that point, consideration should be given to including a housing component. The zoning structure can provide incentives for that to occur, e.g., with a decreased as-of-right density, and increasing density when a housing element is included.

Other

Other portions of the Alewife area, including the Route 2 entryway, and the Triangle currently have zoning designations which permit housing. These designations provide the flexibility for new housing to be built should that be appropriate in the future.

OUTSKIRTS OF STUDY AREA

Concord Avenue edge (east of Fresh Pond Parkway)

Another area that presents an opportunity for future housing development is the block bordered by Concord Avenue, Fern Street, Birch Street and Bay State Road/Field Street. This block sits adjacent to the Neighborhood Nine residential neighborhood and is located between the Tobin School/Father Callahan Field and Danehy Park. It is also far enough from Fresh Pond Parkway so that traffic noise is less intense.

The site is currently zoned Industry A-1 and allows housing along with a variety of light industrial, office and commercial uses. To promote future housing on this site, it is recommended that consideration be given to a zoning change to an appropriate residential designation. This will allow the existing light industrial use to continue but will ensure that any new development that occurs on the site is residential.

End of Harvey Street

At the western end of Harvey Street is a vacant site which is likely to be redeveloped. It is at the edge of the North Cambridge neighborhood and bordered by Russell Field Park. It is also very close to the Alewife T station.

The current zoning for the site is IC, which allows certain types of residential development within a PUD (Planned Unit Development). Further analysis as to the appropriateness of this designation will need to be done.

ECONOMIC DEVELOPMENT

The Economic Development Implementation Plan addresses four major areas: 1) identification of industries strategically suited to the Alewife area, 2) preparation of a development plan which maintains an optimal mix of uses from research and development through manufacturing, 3) identification and deployment of financing tools to foster the development of the area, and 4) preparation and implementation of an arts master plan.

IDENTIFICATION OF STRATEGIC INDUSTRIES.

Alewife, and in particular the Alewife Quadrangle, appears to be a natural site for the expansion of the emerging technology industries that thrive in Cambridge. Located within easy reach of the city's academic research centers and offering an array of older industrial buildings favored by young emerging technology companies, Alewife could be positioned to capture the growth that will spill over from more central industrial areas such as East Cambridge and Cambridgeport. Firms such as Merlin (which manufactures titanium bicycle frames), the Virus Research Institute (a biotech company), and Hyperion Catalysis International (which manufactures carbon fiber) are harbingers of this trend. Specific strategies to identify these industries are:

❶ Commission a market analysis of regional growth trends in emerging technology industries to understand the potential demand and relative attractiveness of Cambridge in general, and Alewife in particular, in this arena.

❷ Target some questions in an upcoming Community Development Department survey of Cambridge research and development and manufacturing companies to assess the desirability of the Alewife Quadrangle.

Examples of technology based companies which may be a strategic fit for Alewife include biotechnology and life sciences, medical and scientific instrumentation/equipment manufacturing and repair, telecommunications, and specialty materials such as composites and ceramics.

PREPARE A DEVELOPMENT PLAN

A development plan will define and link the economic goals for the Quadrangle to the physical development of the area. Ongoing discussions with property and business owners will help define and develop the plan.

Economic goals for the Quadrangle include:

❶ define a development pattern that will meet the need of start-up companies for inexpensive space while offering the potential to expand within the Quadrangle as they grow;

❷ maintain a cost structure that allows for manufacturing to be performed on a portion of the land to meet the city's need for quality blue collar jobs;

❸ bring vacant and underutilized land into productive use to eliminate blight and support the tax base;

❹ integrate the development of the area into the City's job training plans to provide residents with quality jobs and companies with skilled workers.

Three predominant influences on the physical development of the Quadrangle will be land ownership, defining appropriate development patterns, and dealing with Chapter 21E issues on some of the sites:

❶ Ownership. The current ownership pattern includes small and mid-sized parcels. Development studies should be done to identify individually owned parcels suitable for development as well as assembling individual parcels for larger scale development. Public ownership or partnership should be explored as a way to stimulate investment and insure that the economic development goals are met.

❷ Development pattern. Emerging industries need space at a variety of rents to accommodate growth from start-up research and development to manufacturing. The development scenario for the Quadrangle should preserve older buildings which are suitable for re-use by early stage companies and older buildings which are appropriate for manufacturing. New buildings can be brought on line to meet the needs of firms as they mature financially and are able to pay higher rents for space.

The need for the development of an incubator in Alewife should be assessed. The incubator could provide inexpensive space for emerging companies where services such as darkrooms and fax machines are shared.

❸ Chapter 21E Issues. While some sites in the Quadrangle are clear of contamination and can be developed in their present state, others will require clean-up under the provisions of Mass. General Law Chapter 21E.

Available information on Alewife sites having 21E problems should be collected, and a strategy for cleaning or capping development sites should be developed.

FINANCING TOOLS

The development of the Quadrangle area will involve significant investment in infrastructure and real estate and will probably be accomplished though a mix of public and private resources. The list below includes a list of possible sources that should be explored.

❶ 121A Tax Agreements. These tax agreements could be considered to provide a financial incentive for property owners planning to develop land for manufacturing. Requiring approval by the City Council and State, 121A agreements allow companies to reduce property taxes for a specified period of time. For example, Biogen in Kendall Square was recently approved for a 121 Agreement.

❷ Tax Increment Financing. Included in the state Economic Stimulus Package passed in 1993 and sponsored by Governor William Weld, this tool could finance the construction of infrastructure in the district. TIF is based on a plan agreed to by private property owners in an area that establishes a tax rate as a percentage of a base valuation for a period of up to 20 years after improvements are made. A municipality can levy betterment assessments on participating property owners to pay for improvements.

❸ Economic Opportunity Area Designation (State). Also included in the State Economic Stimulus Package, this designation is available to areas that meet poverty and unemployment guidelines. Provisions include a variety of tax incentives and real estate tax abatements.

❹ Loan programs to finance space for emerging technology companies including the Cambridge HUD 108 Biotechnology Loan Program and the State's Emerging Technology Fund should be marketed to companies interested in Alewife.

PUBLIC ART

The inclusion of a major public art program in development plans could give Alewife a unique sense of place which enhances the district as a place to work. This program could be implemented after development is substantially underway and a new sense of place is being established. Implementation steps include:

❶ Develop an arts master plan which could give Alewife a district identity and identify sites for installations.

❷ Identify funding. Funding sources that do not compete with economic development goals for the area should be identified.

❸ Hold competition and select artists. A national competition among artists who design works for public installation could be held to determine participating artists.

REGULATORY PLAN

Zoning can play an important role in directing change in Alewife. As with every other technique, however, that role is limited and must be used in concert with other tools to achieve the objectives for Alewife as outlined in this report.

REGULATORY OBJECTIVES

Among the general, district wide objectives which land use regulatory techniques might help to advance are the following:

Improve the level of environmental quality in the district

Whether directed simply at the appearance of the individual buildings in the district or more generally at a more rational organization of uses and development patterns throughout Alewife, zoning techniques can facilitate the transition of the area over time in ways that assure a more pleasing physical setting within which all kinds of uses can operate more effectively. These techniques include requiring conformance to a pre-determined urban design scheme, requiring greater amounts of landscaping and open space regulation of the layout of parking facilities on lots, some control over the appearance of buildings, greater public review of the specifics of site development, and more careful screening of the uses to be permitted. The desired results are to establish more open space through setbacks and landscaping even in industrial areas, reduce the clutter and visual chaos produced by on premise signs, particularly along Alewife Brook Parkway and Concord Turnpike, to control parking location so that it is not such a dominant visual feature from public roads, more integration of the existing open space reservations with adjacent development, and a greater respect for that open space when adjacent development is designed.

Improve the management of transportation services to the district

While vast numbers of cars travel through the district, 60 percent of them are not even destined for any place in Cambridge, never mind the Alewife district itself. Nevertheless that volume of traffic affects how the district will develop in the future and what impact that development will have on the residential communities potentially affected by future increases in car and truck traffic destined specifically for Alewife. The application of zoning techniques can address this issue quite directly in a number of ways: by directly controlling the amount of floor area that is permitted in the district, by regulating the kinds of uses that are allowed within the density envelope selected, and by imposing traffic mitigation measures as appropriate to limit the traffic impacts of authorized additional development. Other measures which could improve traffic and transportation management in the district, such as specific roadway improvements, must be addressed directly through other techniques. A goal of this Master Plan is to encourage alternate means of travel other than the single occupancy automobile, both in getting to Alewife and in travelling within the district during the business day. In part these objectives might be advanced through modified requirements for the provision of accessory parking, through requirements to develop and/or participate in traffic mitigation measures within the district and through a better mix of uses which could service the needs of employees throughout the working day without resorting to use of the automobile. However, substantial reductions in the amount of development permitted has not generally been the choice in addressing this issue.

Encourage a better mix of uses

Of all aspects of development, the control of uses is perhaps most directly addressed through the use of zoning regulatory tools. Zoning, however, cannot ensure a particular result in this regard. If a market does not exist, zoning cannot mandate the appearance of a use (for example retail activity where there are not enough people to support the activity). However, the technique can most directly prohibit undesirable uses and can allow desired uses which can then appear in response to market conditions. The zoning ordinance could also provide certain incentives to make a desired use more financially feasible. Economic development objectives of this Plan include increasing the ease with which research and development and manufacturing uses might be established in the district. Additional recommendations of the Plan are the introduction of accessory retail in the major industrial and office districts, and the continued opportunity to build housing in limited portions of Alewife.

Increase the amount of open space

Zoning can mandate a certain percentage of open space on a developed lot. In addition, where large parcels are being developed to multiple buildings, flexibility in the dimensional limits imposed by zoning might permit the creation of a sizable open space or park on a lot through the shifting of development potential to other locations on that development parcel. In this way, a greater presence of open space and a better linkage between open space and pedestrian paths throughout the district can be encouraged.

GENERAL ZONING APPROACHES

To achieve the above objectives a number of general approaches have been proposed:

Base zoning

In general the existing base zoning districts are to remain, with their current mix of uses and dimensional limits intact. The one major exception to that general rule might be an alternate for the Business C District where more public review of development approaching the maximum allowed under that district is desirable. In the Quadrangle, some adjustment in the Office 2 District/Industry B-2 District boundary line makes sense to give added emphasis to the desire to encourage industrial and Research and Development uses.

PUD 5 Zone

The Planned Unit Development (PUD) 5 zone, which is an overlay district for the Office 2 District present in the Triangle, should be eliminated as its provisions are obsolete and ineffective in achieving the PUD's own stated objectives or those outlined in this report for that area.

Overlay Districts

The existing Parkway Overlay District, which currently runs as a thin, regulatory band along the Concord Turnpike, Alewife Brook Parkway, and Concord Avenue, should be eliminated in favor of a more comprehensive Overlay District covering most of the Alewife study area. Specific objectives for the edge currently covered in the overlay districts would be included in the new overlay district. Through this new Overlay District the following would be achieved.

❶ An urban design plan would be referenced and its provisions used as a guide where development within the Overlay District occurred as of right, and as a requirement where a variance or special permit were required to permit a development scheme to proceed.

❷ An expanded range of uses would be permitted: limited industrial use would be permitted in Office 2 Districts; accessory retail would be permitted in office districts and in the Industry B-2 district.

❸ Open space would be required for most new developments, not simply for residential development as is now the case.

❹ Parking would be regulated so as to favor specific uses, such as manufacturing and accessory retail, which require fewer employees or customers arriving by automobile. Parking should be tied to land area rather than building area.

❺ A special permit requirement might be instituted for larger scaled developments with design review and traffic mitigation being two requirements that could be a part of the approval of such special permits.

❻ Greater flexibility should be introduced, through transfer of development rights or other mechanisms, which would permit development of sites or combinations of sites in a manner consistent with the urban design plan.

SPECIFIC ZONING OBJECTIVES, BY AREA

Route 2/Alewife Reservation Area

The development of this area is particularly critical as it borders one of the major vehicular entries into the city (Route 2/the Concord Turnpike) as well as the MDC's Alewife Reservation, one of the largest open spaces in Alewife and one of the area's most unique features. A major objective here is to improve the image of the area visually by permitting expansion of the office and research and development uses which currently predominate and to encourage the phasing out of the destination retail uses which dominate the Route 2 frontage at the Belmont town line. To advance those objectives the following zoning techniques are suggested.

❶ The Office 2 designation is retained, which allows the office, research and development, and hotel uses desired.

❷ Limited accessory retail uses would be introduced.

❸ Special setbacks as exist would continue to be required from Concord Turnpike. Setbacks from the Little River would also be required; legislation currently under review in the State Legislature might address this issue most appropriately.

❹ Flexibility in dimensional regulations would be permitted to make possible redevelopment of the retail sites in conformance with the urban design objectives of the area, i.e. improved landscaping and installation of a frontage service road.

The Triangle

Retention of the predominant office and R and D uses in this area is anticipated, but with the introduction of accessory retail activity on the ground floor of buildings fronting on Cambridgepark Drive. Better pedestrian connections between the development in this district, the adjacent MDC Alewife Reservation, the Fresh Pond Shopping Center, and the Quadrangle are desired. Significant additional development should be tied to implementation of, or participation in, traffic mitigation measures. The following is proposed.

❶ Retention of the existing Office 2 designation but elimination of the PUD 5 district.

❷ The new Overlay District would be utilized to incorporate some of the more desirable features of the old PUD 5 district including:

- Introduction of accessory retail as a permitted use.
- Special provisions to waive certain setback requirements, to increase height, and to permit joint development of lots in order to secure the urban design objectives outlined for this area, particularly including the strengthening of the pedestrian quality of the street frontage along Cambridgepark Drive.

The Quadrangle

This is the portion of the Alewife District where light manufacturing is particularly to be encouraged. It is an area with a confusing and, in some cases, unattractive appearance; a significant upgrade of the visual quality of this area is desired. In addition, this is the area in Alewife that directly abuts a small scale residential neighborhood; particular attention must be paid to ensuring an adequate buffer or transition between that neighborhood and the nonresidential development in the Quadrangle. The following regulatory directions should be taken:

❶ The existing Office 2 District and Industry B-2 District will be retained. Some modifications to their mutual boundary may be considered.

❷ Special transition requirements between those two districts and the abutting residential neighborhood will be incorporated into the new Overlay District. Those special provisions will be removed from base districts where they are currently located.

❸ Setbacks will be required, landscaping requirements for those setbacks will be introduced, and parking will be specifically required to be screened from view in order to significantly improve the visual aspects of the area.

❹ Flexibility in development options, including transfer of development potential between lots, should be introduced to enable private development the opportunity to provide some of the desired urban design objectives, including the provision of a rational system of roadways, new parks, and a series of pedestrian ways throughout the area.

❺ Accessory retail uses would be introduced as would light manufacturing as a permitted use in the Office 2 District. Consideration might be given to providing incentives to encourage the inclusion of manufacturing in new developments.

The Fresh Pond Commercial Area

This area is expected to remain principally a retail shopping district. It is, however, viewed as clearly substandard from a visual environmental perspective and a major improvement in that aspect of the area, which brackets a major entry highway into Cambridge, is a prime objective of the Plan. This is the one area where a clear reduction in the as-of-right development density potential is advisable as there are significant traffic implications if large new additions to the retail activities of the area were to occur in the future. The following approaches should be considered.

❶ Substitution of the Business C zoning designation by an alternate district which would reduce the amount of as-of-right development permitted, perhaps by half. Consideration could be given to increasing the as-of-right density by special permit provided effective traffic mitigation measures were adopted. Increased density may also be permitted if housing were a component of any new development, also by special permit or through a design review process.

❷ Flexible development techniques, including transfer of development rights should be considered to encourage redevelopment that could improve the visual aspects of the current strip retail development along Alewife Brook Parkway.

PROCESS FOR DESIGN REVIEW IN THE "NEW OVERLAY DISTRICT"

The process is based upon the successful aspects of the Parkway Overlay District which dates from 1980, in which projects requiring Special Permits follow the Development Consultation Procedure for Large Projects outlined in the Zoning Ordinance. This entails a public hearing at the Planning Board, with review by the Board and staff and with public commentary taken into consideration as the decision is rendered.

There is a hierarchy of subdistricts:

❶ Level #1: Major Ways, i.e. Parkways/Concord Avenue. Compliance with the most detailed guidelines is required for projects of 20, 000 square feet or more on every property that abuts major ways.

❷ Level #2: Secondary Ways, e.g. Smith Place, Moulton Street, Spinelli Place, Cambridgepark Drive. Compliance with a less detailed set of guidelines is required for projects of 50,000 square feet or more on every property that abuts secondary ways.

❸ Level #3: Tertiary Ways, i.e. sites in the interior portions of Alewife and not visible from the major ways. Here, guidelines treat only the most basic features, such as height and setbacks that have an effect on nearby major or secondary ways.

PHASING

Implementation of the Alewife Master Plan recommendations will begin once the plan has been accepted by the Cambridge City Council. Phasing of many of the implementation measures described in this report, such as roadway improvements, bicycle paths, and new open space, will be affected by the availability of both public and private financing needed to develop public/private partnerships and construct infrastructure. Progress on other measures, such as development of design guidelines, short-term improvements to the entryway and further development of transportation management strategies, can be made more quickly.

SHORT-TERM IMPLEMENTATION PLAN

The following is a list of the implementation strategies that the city will pursue in the short-term:

Open Space

❶ Work with the City's Fresh Pond Management Group on landscape improvements to the edge of the Reservation.

❷ Develop zoning mechanisms, including transfer of development rights, and urban design guidelines for new open space in Alewife.

Transportation

❶ Roadways: Among the proposed roadway improvements, highest priority should be given to reconstruction of Concord Avenue And the Smith Place/ Concord Avenue intersection.

❷ Transit Improvements: With the MBTA, further develop the feeder bus network to Alewife stations. Play an advocacy and planning role to promote the Commuter Rail Station.

❸ Transportation Demand Management: Work with Alewife businesses to develop a Transportation Management Organization (TMO).

❹ Bicycle Network: Design proposed bicycle connections/ paths in Alewife, particularly a link to the newly constructed Minuteman Bikeway, working with public agencies including the Central Transportation Planning Staff (CTPS), Massachusetts Highway Department, and MBTA, as well as the adjacent towns of Arlington, Belmont, and Somerville.

Housing

❶ Investigate sites on the outskirts of the study area to determine the feasibility of future housing at these locations.

Economic Development

❶ Identify and outreach to specific industries strategically suited to Alewife.

❷ Prepare a development plan for the Alewife Quadrangle that is site specific. This analysis will show site parcelization, type of development desired and site constraints and opportunities. The development plan will assist in matching new businesses, particularly those that are R & D and manufacturing-oriented, to site opportunities in Alewife.

Regulatory

❶ Develop zoning amendments and detailed urban design guidelines.