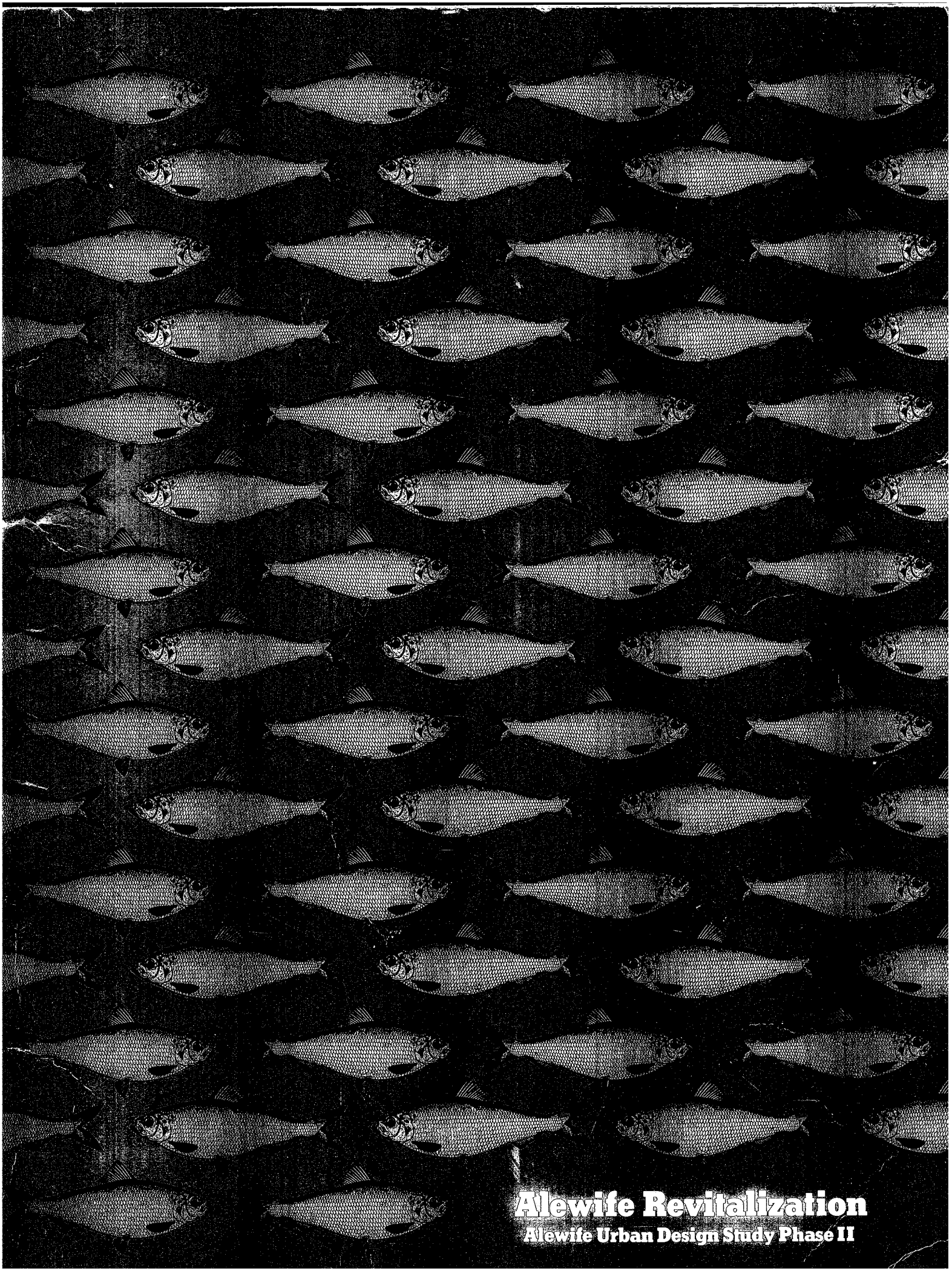

Alewife Revitalization

Alewife Urban Design Study Phase II

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Alewife Urban Design Study Phase II

City of Cambridge, Massachusetts
James L. Sullivan, City Manager

Community Development Department
Urban Design Section

Cambridge City Council
The Honorable Thomas W. Danehy, Mayor
Councillor Lawrence W. Frisoli, Vice-Mayor
Councillor Kevin P. Crane
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Councillor Saundra Graham
Councillor Mary Ellen Preusser
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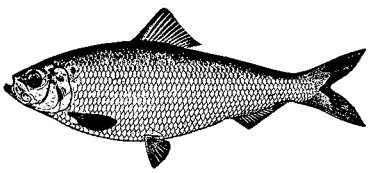
April, 1979: 5M

ale · wife (āl′ wīfe′) *Pomolobus pseudoharengus*, a small river herring found along the Atlantic coast and landlocked in certain lakes of North America, especially in New England.

The fish has a deep body and is heavily built forward, thus the comparison with an "alewife," the name given to a hearty seventeenth-century English alehouse keeper.

"The alewife is like a herrin', but it has a bigger bellie, therefore called an alewife." A Dictionary of Americanisms, 1675



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Overview of the Study

Why Plan for Alewife Now?

Alewife, once an important job and tax producing center in Cambridge, is now in the midst of transition. It is changing from the unplanned industrial area which evolved in the 1940's and 1950's into an office, research, and service oriented center. To date, the transition has been slow. Some industrial buildings have been rehabilitated for new uses and a few new buildings have been constructed, mostly small scale structures. Now large-scale development is being discussed by major land owners with the potential for dramatic changes. Major public improvements planned for Alewife in the near future include a new Massachusetts Bay Transit Authority transit station and associated roadways. Taken together, these factors promise an increased pace and scale of growth at Alewife in the next twenty years.

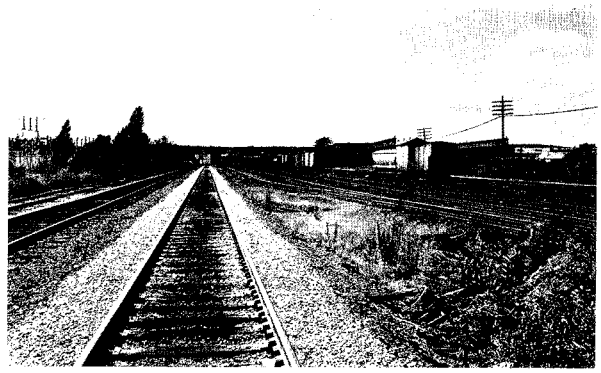
For these reasons, Cambridge citizens must now ask themselves what kind of Alewife development is desirable, and how much of it is appropriate. The Alewife urban design study is an effort by the City of Cambridge to address these questions and plan for the revitalization of a declining industrial area. *The study is intended: 1) to evaluate the potential for growth and change; 2) to investigate the benefits and costs to the community of new development in the area; 3) to formulate a comprehensive plan to manage growth at Alewife; and 4) to outline a course of future city actions to revitalize Alewife.*

What's Happened So Far?

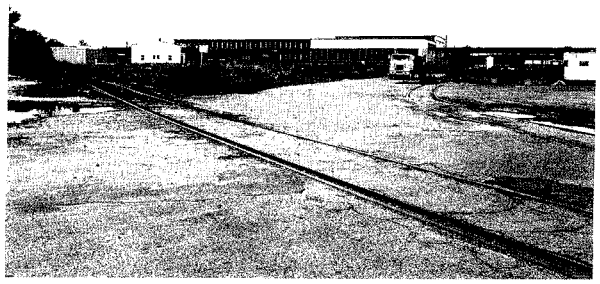
Over the past two years, the Cambridge Community Development Department has been working with area businessmen and neighborhood residents to determine the major community issues involved in growth at Alewife. The initial result of this planning process was a rezoning of the North Cambridge neighborhood. This re-zoning reduced the allowable residential density for the neighborhood, protecting it from land speculation and conversion to apartments frequently associated with high growth areas.

The Alewife Urban Design Plan marks the beginning of public discussion to determine the future of the Alewife industrial areas. This discussion must involve the full range of Cambridge interests: businesses, residents, and public officials. *In the next few months, a series of discussion meetings about Alewife will be held to explain the proposed Urban Design Plan, to hear suggestions for improving the plan, and finally, to reach a consensus about Alewife's future.*

Why continue this...



1. West Cambridge Freight Yards



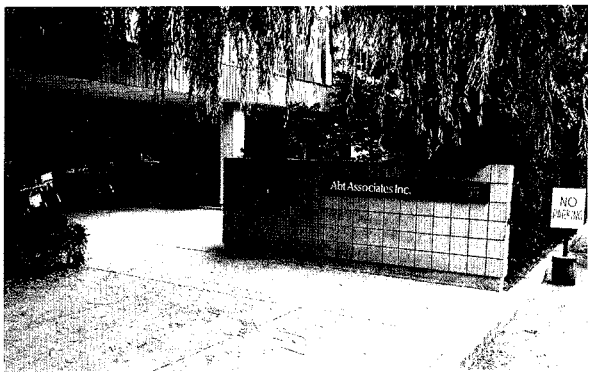
2. Typical Industrial Area Surface Condition

3. Recent High Rise Development

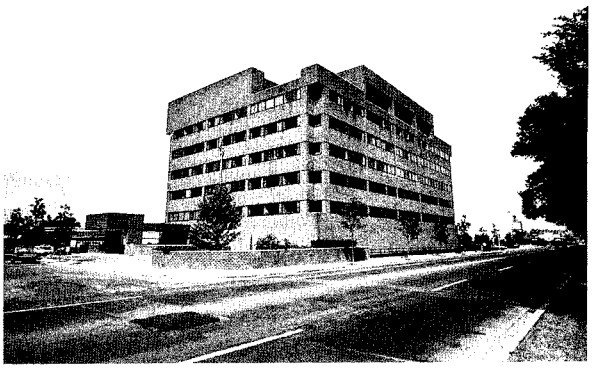
4. Industrial Buildings
Crowding an inadequate local street.

...when this is possible?

5. Little River
Alewife's unappreciated natural resource.



6. Abt Associates
An example of creative office site planning and design.



7. Bolt, Beranek, and Newman
Larger development need not be unattractive.

8. Alewife Brook Parkway
Landscaping major highways can improve the area image.

Why Have An Urban Design Plan?

An accepted Urban Design Plan, evolved through the participation of all Cambridge interests concerned, can help the city to structure Alewife change and strongly influence the course of private development. The Plan will indicate needed public improvements such as new streets, expansion of the water and sewer systems, and open space improvements to mold future development into a planned and orderly district. Next, a set of land use controls and zoning regulations will encourage a desirable mixture of land use at Alewife and prevent unwanted activities. Urban design guidelines, developed as part of the Plan, will help prevent adverse impact on the natural environment and protect nearby residential neighborhoods. Design guidelines also help to improve the image of the area.

The result of the Urban Design Plan should be the revitalization of Alewife. If the plan is developed and executed properly, new development should lead to many new jobs and a substantially expanded tax base without negatively affecting residential neighborhoods or over-extended city services.

How Can You Be Involved?

You can be involved in the community planning process for Alewife by discussing the issues raised in this publication with your friends and neighbors. You should also attend public discussion meetings to be held in the next few months to state your views.

Once a consensus Urban Development Plan is reached, the Cambridge Community Development Department will prepare new zoning proposals for Alewife. A zoning petition will be sent to the Cambridge Planning Board and to the City Council for consideration. Formal hearing notices will then appear in local newspapers. You are encouraged to attend these hearings and comment on the Plan. When the zoning issues are settled, a final Urban Design Plan will be prepared and implemented.

If you would like more information, please write to:

Alewife Urban Design Study
Cambridge Community Development Department
57 Inman Street
Cambridge, Massachusetts 02139

or you can contact the Alewife Urban Design Team: Chris Dame, Michael Robinson, or Don Balcom at 498-9034.

9. Blair Pond Near Cambridge Highlands Neighborhood
This one acre pond could enhance private development and serve recreational needs of nearby residents.

Introduction To Alewife

Location

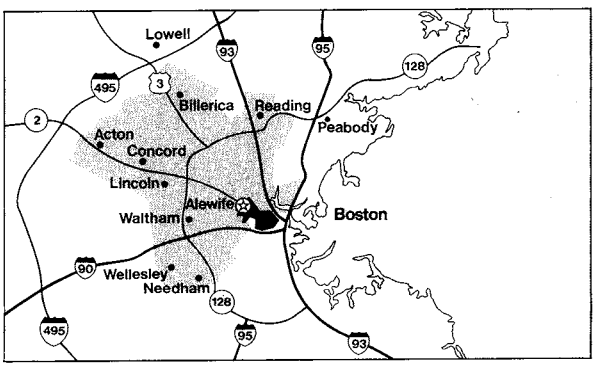
Today, Alewife is an underutilized industrial area located in the northwestern corner of Cambridge where Massachusetts State Route 2 meets the Alewife Brook Parkway. The area encompasses approximately 370 acres, everything north of Concord Avenue along the Parkway to the Arlington town line, and west to the town of Belmont.

Within a 30-minute drive of Alewife are Logan International Airport, the commercial and governmental districts of Boston, and many desirable residential communities, including the entire City of Cambridge (see Figure 10). Also found nearby are many major educational institutions including Harvard University and Massachusetts Institute of Technology, providing a continuous source of technical expertise and skilled personnel.

The Alewife area enjoys excellent transportation access from regional highways like Route 2 and the Alewife Brook Parkway. It is serviced by an MBTA commuter rail line, Boston and Maine Railroad freight lines, and numerous MBTA bus routes connecting to the metropolitan subway system at Harvard Square.

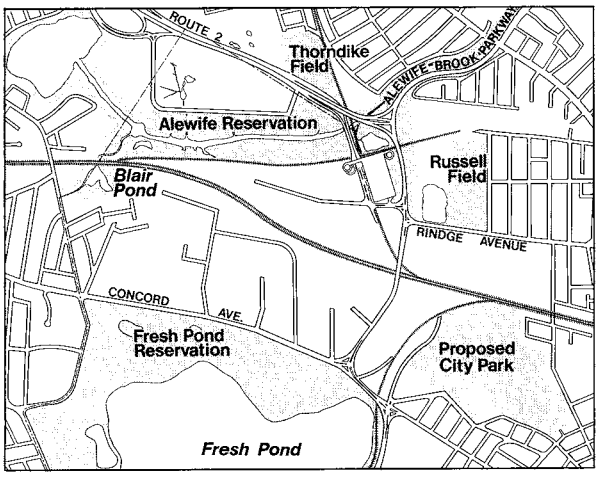
Surrounded on three sides by parkland, the area is graced with an abundance of open space (see Figure 12). To the north lies the Metropolitan District Commission's Alewife Reservation, 115 acres of open space dedicated as a natural area. To the south is Fresh Pond Reservation, a 315-acre city-owned recreation area featuring a nine-hole municipal golf course and a 166-acre lake. To the east is the City's Russell Field athletic facility. A 55-acre "city park" is also proposed for the old abandoned Cambridge Dump in the next five years.

In summary, Alewife's excellent location, with regional highway access and proximity to Boston's commercial and governmental center, its natural amenities, and its existing markets and labor sources, combine to make the Alewife area potentially one of the most highly attractive development sites in the entire Boston region.

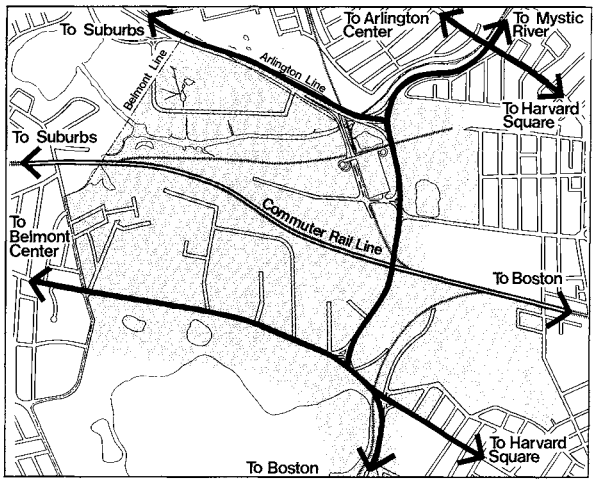


10. Thirty-Minute Driving Time
Locations reachable from Alewife by car include most Route 128 communities as well as the Port of Boston and Logan International Airport.

11. Little River at A.D. Little Office Complex

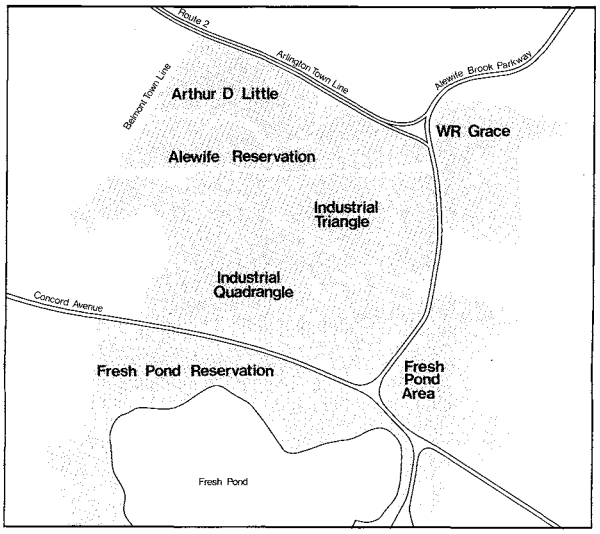


12. Adjacent Open Space
Alewife is surrounded by open space: private areas—Blair Pond; municipal parks—Fresh Pond, the proposed City park, Russell Field, and Arlington's Thorndike Field; plus state areas—the MDC's Alewife Reservation and Alewife Brook Park.

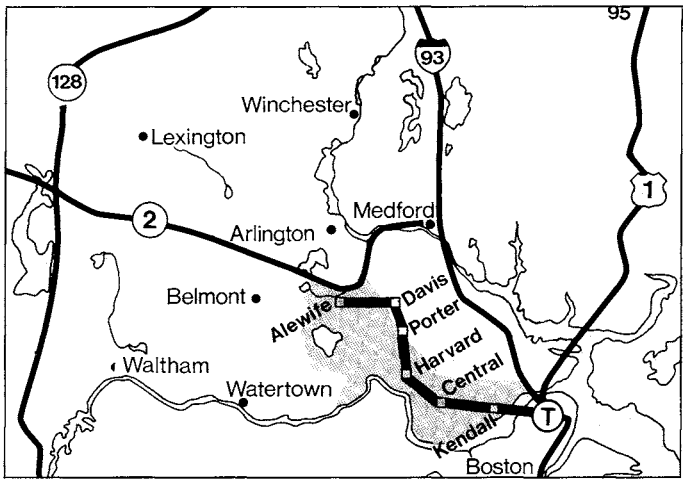


13. Area Context
The Alewife Study Area includes all the shaded portion—roughly 370 acres of open space, industrial, and commercial land.

14. Parking at A.D. Little Office Complex
The predominant land use in Alewife today is surface parking lots.



15. Alewife Subdistricts
The Alewife area can be divided into a number of distinctly different land use zones.



16. Regional Context
Alewife is found where Route 2 enters Cambridge at the Arlington and Belmont town lines. It will soon be served by the extension of the MBTA Red Line.

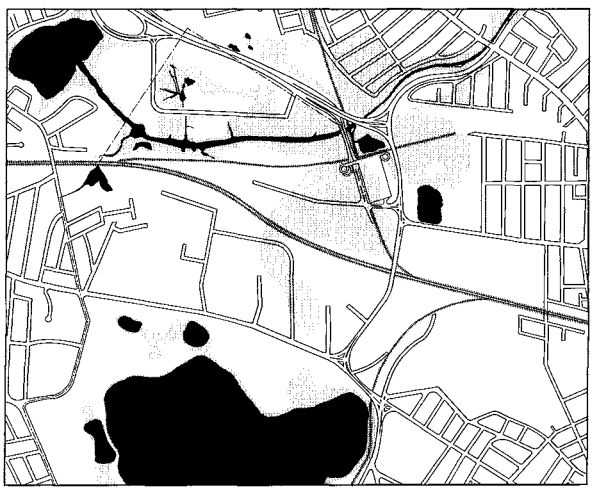
17. Traffic Congestion on Alewife Brook Parkway
Slowly moving automobiles characterize area roadways today.

Natural Features

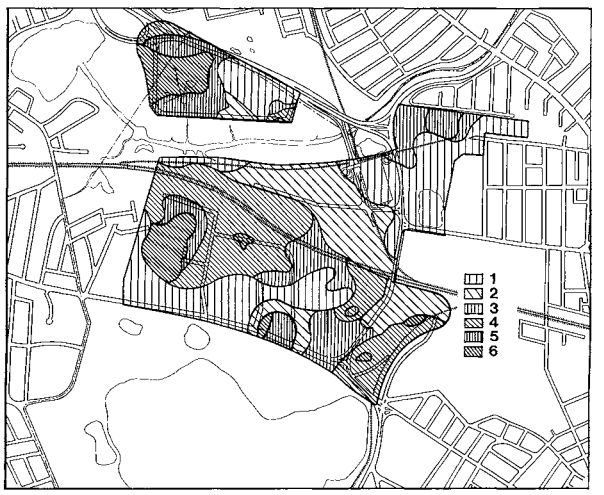
The natural environment at Alewife is both an inducement and an obstacle to new development. There is an abundance of public open space or parkland in the immediate area with connections to the regional open space system. Such features offer exceptional natural amenities for development as well as providing a buffer for nearby residential neighborhoods.

There are, however, a number of environmental drawbacks that must be considered. One example is Alewife's hydrology. The water table in the entire area is quite close to the surface, complicating foundations and the provision of utilities. Furthermore, the 100-year floodplain of the Alewife Brook watershed covers some of the most attractive development areas (see Figure 18). The Cambridge Conservation Commission exercises statutory responsibility for protecting designated wetlands and floodplains like those found at Alewife. This means that new construction will have to be well planned. It must avoid contributing to future flooding in the area and damage to important conservation lands to win Conservation Commission approval.

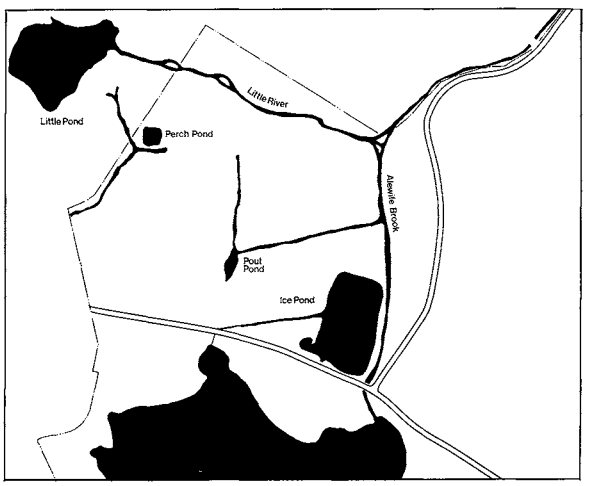
Alewife's surface geology poses other potential problems. In general, area soils resulted from the accumulation of glacial lakebed sediment of fine silts and clays with peat deposits developing over time. The result is a topsoil of considerable depth to bedrock, and low bearing-capacity soils. A recent study commissioned by the city identified seven soil groups at Alewife, each having different development characteristics (see Figure 19). ***The study's major conclusion was that the poor bearing nature of these soils necessitates special, costly foundation design for all buildings over three stories high. This is one more indication of the need for careful and cooperative planning for growth at Alewife by both public agencies and private interests.***



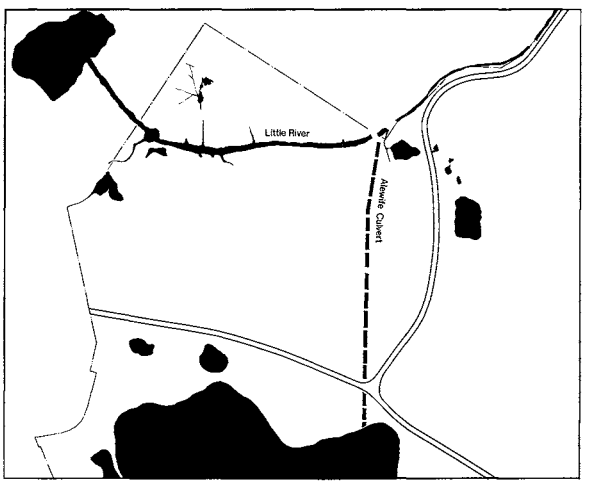
18. 100 Year Floodplain
Gray shaded areas represent land considered to be within the 100 year floodplain, and subject to special development controls. Black shaded areas represent permanent standing water bodies.



19. Alewife Soil Conditions and Development Costs
Premium foundation costs increase from Soil Zone 1 to Soil Zone 6. See Appendix Two, Table 5 for cost details.



20. Alewife Water Features: 1886



21. Alewife Water Features: 1978
Today Alewife Brook survives only in an underground culvert and the small ponds have disappeared completely.

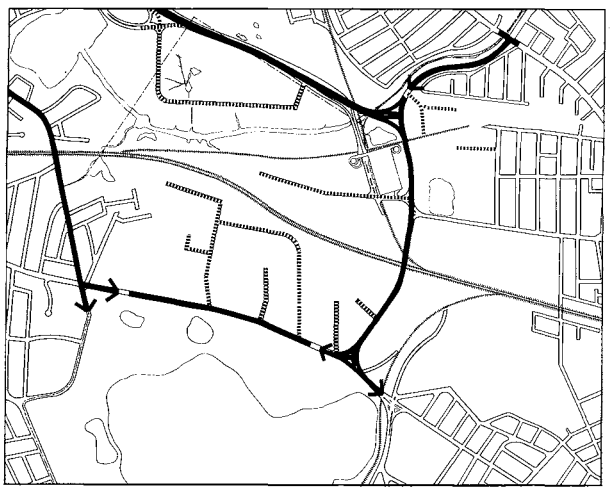
Man-Made Features

It is equally important for Alewife's future to consider its man-made features. For example, over 80% of the privately-owned land at Alewife is presently covered either by buildings, street paving, or parking lots. This condition severely aggravates the area's hydrology problem during periods of intense rainfall. The large amount of impervious ground cover prevents natural drainage of storm water, adding to the area's flooding problems. Obviously, new development must correct this situation through improved site planning and landscaping to provide as much natural drainage as possible.

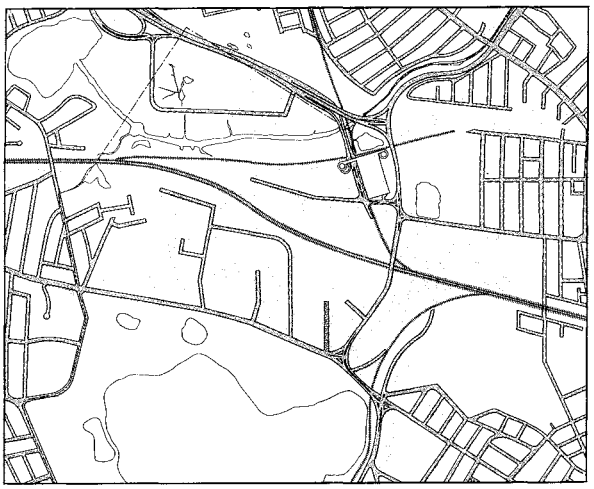
Alewife's water and sewer services also need upgrading. Today's utilities are the result of unplanned industrial growth over the last forty years. Even under the moderate demands of present users, the system experiences difficulties because of limited capacity, settlement of pipes, dead-ended water lines, and the general age of the network.

As for auto and truck traffic, Alewife's streets and roadways are hard pressed for a variety of reasons. The existing road pattern is fragmented and incomplete. Recent traffic studies have shown that for all practical purposes it is operating at capacity today. Historically, the Little River and the Boston and Maine Railroad tracks have been barriers to free north/south movement.

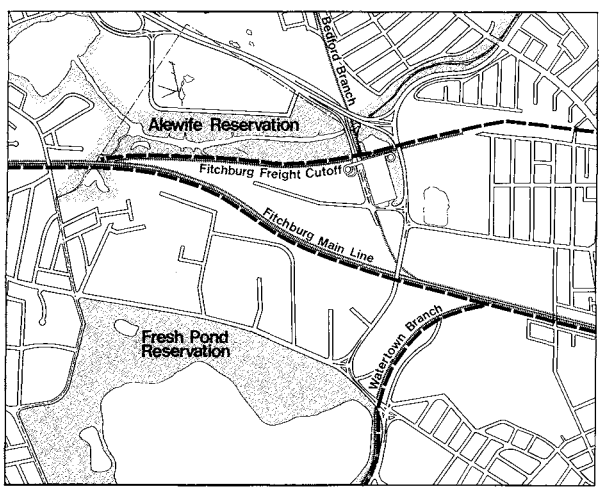
Improving traffic flow depends on finding a way to bridge these barriers as well as completing Alewife's local street system. Obviously, along with major new development in this area must come substantial changes in Alewife's roads.



22. Circulation
Although travel along Alewife's edges is facilitated by the regional highway system, the unfinished character of the local street system is awkward and inefficient.



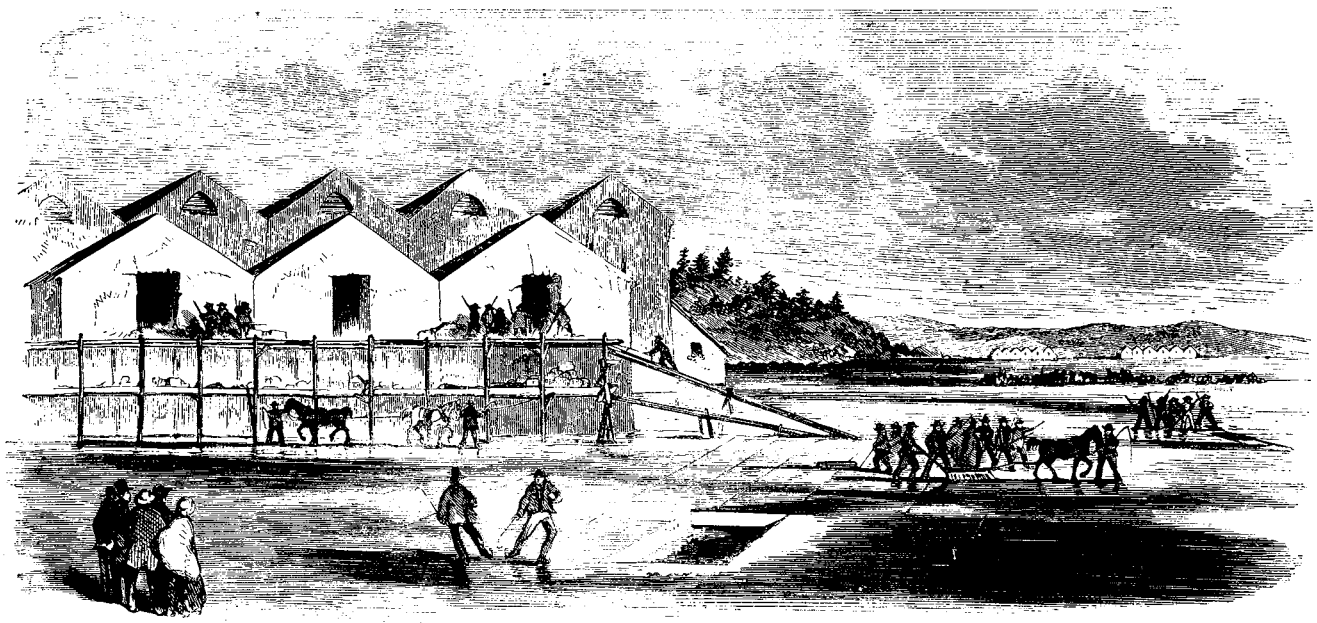
24. Impervious Cover
Gray shaded areas show land covered with paving or building allowing little natural drainage.



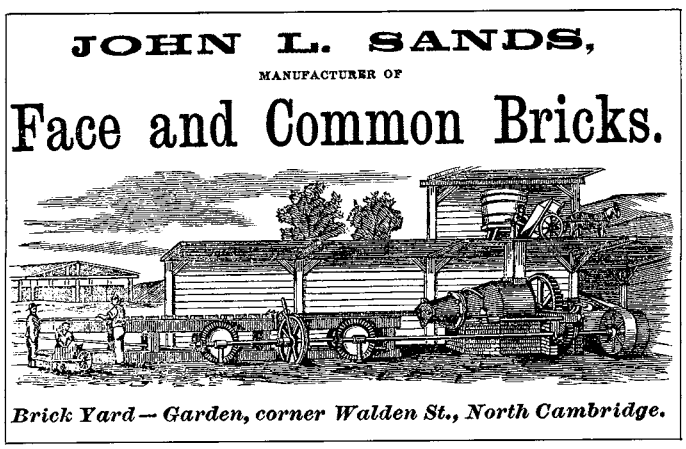
23. Natural and Man-Made Barriers
Numerous obstacles exist to free movement within Alewife: some natural —Alewife Reservation and the Little River; others man-made—the railroad lines.

Finally, the buildings in the area also need attention. Many of the industrial structures at Alewife are approaching the end of their useful life; they will need major capital improvements in the near future. Some, like the former Adley Freight Terminal, have suffered so extensively from ground settlement over the years that they now have no practical hope of recovery and must be replaced altogether. ***Owners and occupants of Alewife buildings are facing major decisions about renewal and reuse of aging buildings. This would appear to be the ideal time for the public and private sectors to consider alternative choices for Alewife's future.***

History

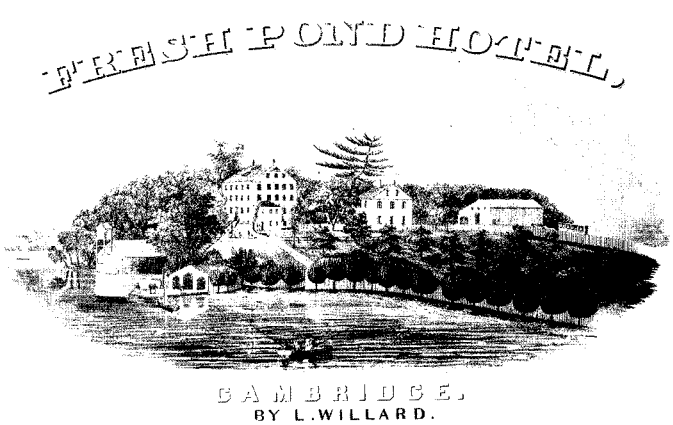


25. Ice Cutting at Fresh Pond
Ballou's Pictoral, *1855. The Hiffinger ice houses once stood on the site of Glacken Playground.*



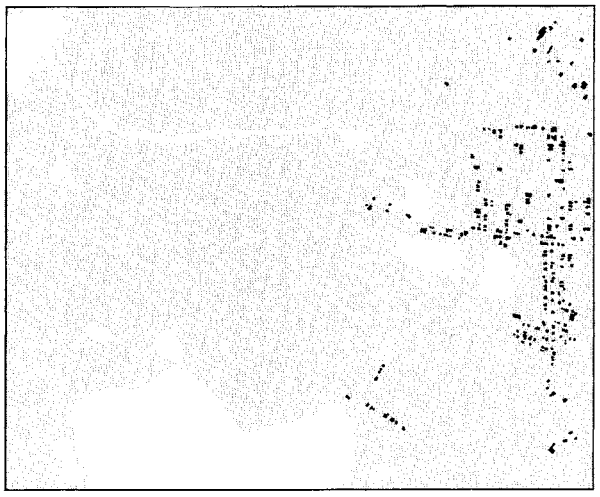
26. Sands Brickyard Advertisement
Cambridge Directory, *1874. Site is now St. Peter's Field*

28. New England Brick Company
Circa 1930, site of the new City Park

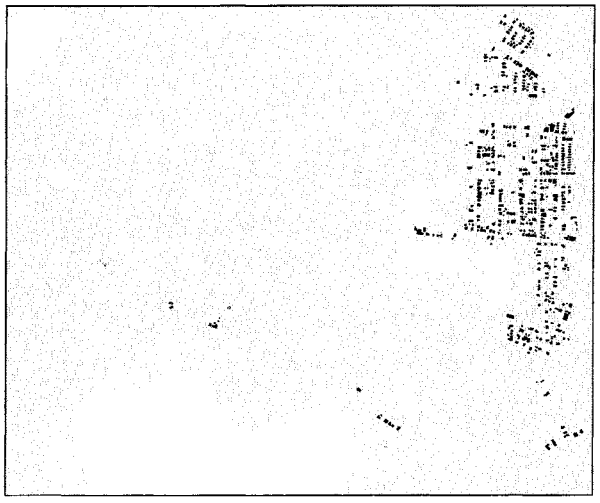


27. Fresh Pond Hotel
This lithograph from 1845 shows the site of Kingsley Park.

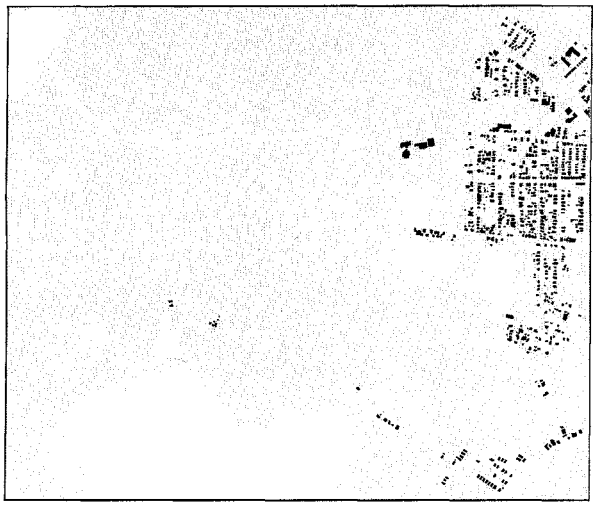
29. Jerry's Pit
A photograph circa 1945 showing New England Brick Company in the background.



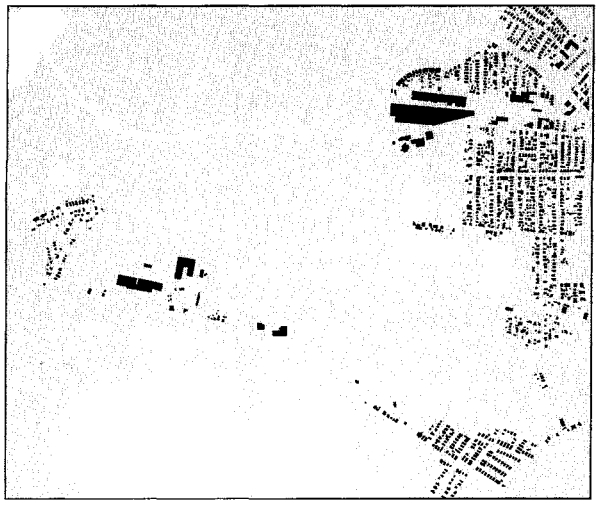
30. 1873



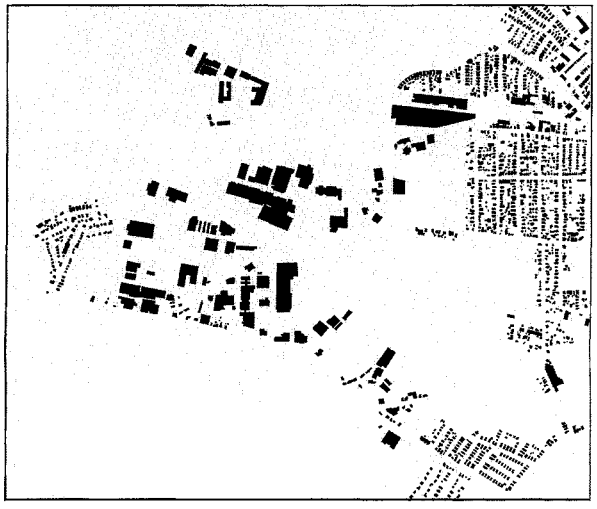
31. 1900



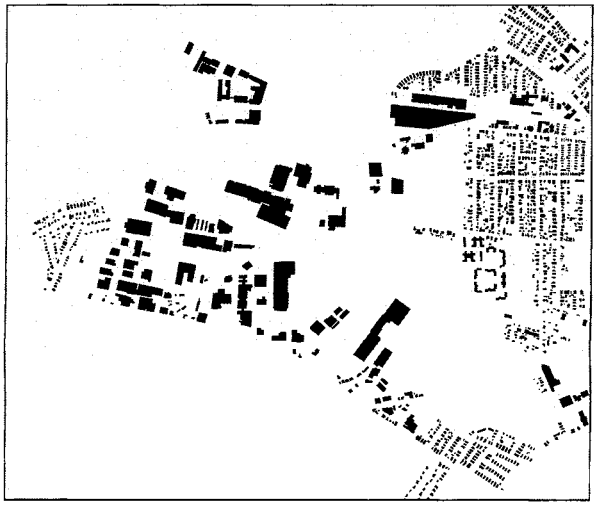
32. 1917



33. 1940



34. 1960



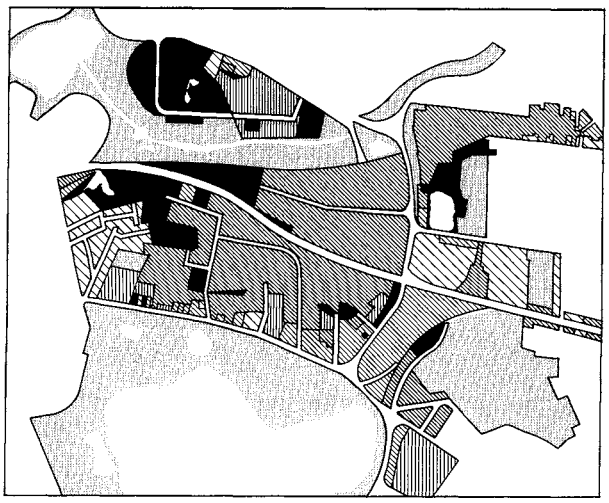
35. 1978

30-5. Historical Growth Patterns of Alewife
Drawings show gradual development of industrial and residential areas in close proximity over the last century.

Land Uses

Alewife's 370 acres and 223 buildings accommodate a mixed pattern of land uses ranging from residential to heavy industry (see Figure 36). This haphazard land use pattern reflects the incremental growth of the area as well as zoning regulations. The industrial zoning categories for Alewife now allow virtually all land uses except residential, with no setbacks, no landscaping, no sideyard requirements, and no height limits. There are, in fact, very few land use restrictions at Alewife.

Looking at the resulting use of the land, two surprising observations can be made: over 25% of the area is used for warehousing rather than industry or commerce, and over 20% of the area is vacant, awaiting more productive times. There would appear to be ample "room" for change at Alewife today, even without displacement of an existing business or destruction of an existing building.



36. Land Use at Alewife

- *Open Space*
- *Hotel, Residential*
- *Retail, Service*
- *Institutional/Governmental*
- *Industry, Warehouse/wholesale*
- *Research & Development/General Office*
- *Vacant*

Employment

In the past, employment at Alewife has been an important resource for the City of Cambridge. Roughly 140 businesses provided about 5000 jobs in 1974, or 6 percent of the total city employment (see Table 1). Since most of the jobs occurred in the industrial areas, it is easy to see that blue collar employment was and is an important asset.

Today, the employment picture is changing. Recent expansions have been in the research and development fields. On the other hand, some of the industrial firms which have traditionally been large employers have either cut back operations or announced intentions to relocate outside the city. If this trend continues as expected, Alewife employment will shift decisively in favor of non-blue collar jobs.

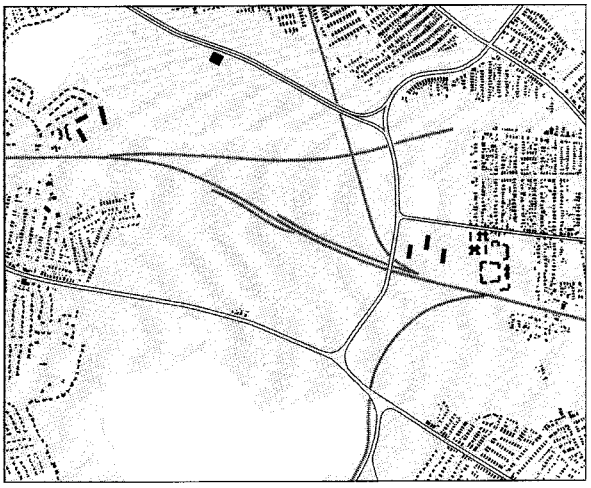
The shift should create more total jobs, perhaps of a more diversified nature, than the area has provided in the past. An analysis of jobs produced per acre of land used today shows that industrial and warehousing operations call for far fewer jobs on an average than the technical office and service operations that have begun to move into the area (see Appendix Two, Table 11).

If Alewife is to continue as a major employment center for Cambridge, efforts must be made to retain existing employers through improving the business climate at Alewife, as well as to attract new businesses to the area. Alewife's recent experience seems to be following a national trend: industrial firms moving to non-urban locations and being replaced in urban areas by a variety of office, retail, service, and residential land uses. In the case of Alewife, fortunately, the incoming non-industrial land uses should, in the long run, produce more job opportunities for Cambridge residents.

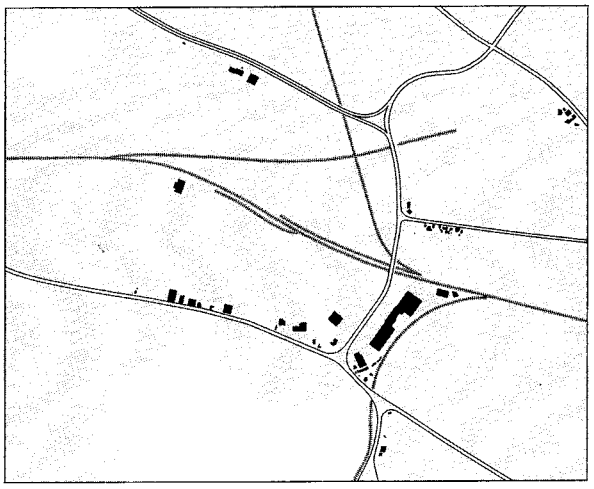
Table 1: Alewife Employment*

Sub Area	Jobs	% Total Study Area Jobs
A. D. Little	1318	26%
Triangle	583	12
Quadrangle	2256	45
Fresh Pond	875	17
Total	**5032**	**100**

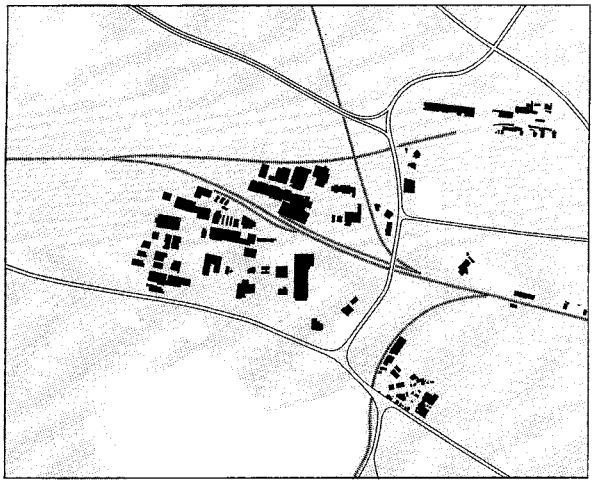
*Source: Alewife Businessmen's Survey 1974



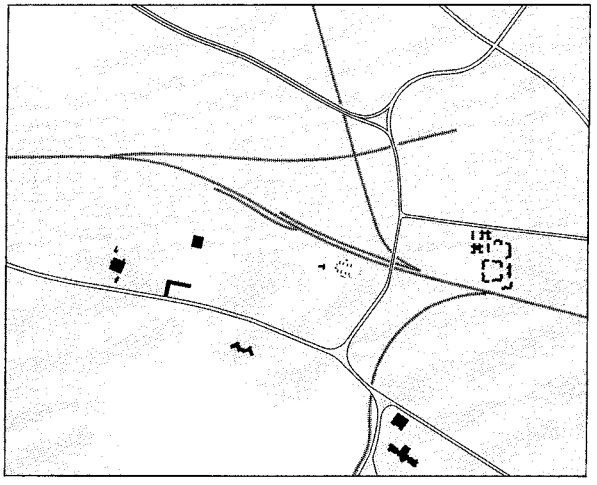
37. Residential



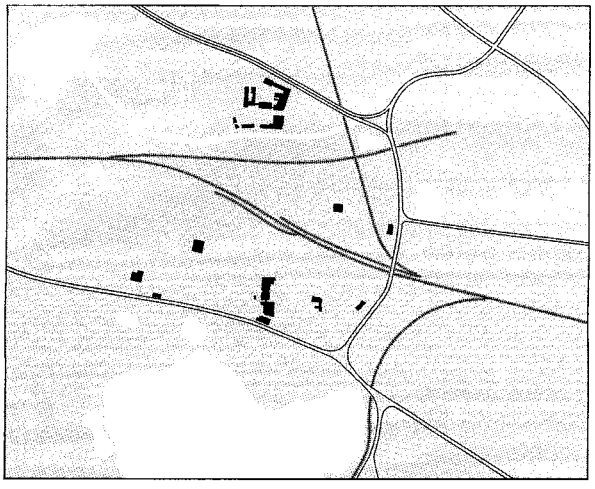
40. Retail and Service



38. Industrial



41. Transportation and Institutional



39. Office

37-41. Existing Land Use Patterns
Diagrams show pattern of individual land uses in the Alewife area.

Taxes

The final consideration in planning Alewife's future is the net tax effect of new development. At the 1978 Cambridge tax rate, the total tax value of the area today is approximately $30,175,000, or an average assessed value per square foot of land of $2.14. This compares to the city-wide average of $2.58 per square foot.

A study of assessed value by land use (see Table 2) reveals some interesting facts. Apartment-residential land use has the highest tax value, followed closely by office, hotel, and service-related land uses. The predominant area land uses, industry and warehousing, fall well below the Alewife average as tax producers. Thus, given current trends, traditional industrial uses are being replaced by higher tax producing as well as job producing land uses.

The cost of municipal services used must be balanced against the taxes paid to the City by various land uses. A recent Cost Revenue Study undertaken by the City attempted to determine the ratio of municipal costs generated by various land uses compared to total taxes paid by these land uses throughout the city (see Table 3). ***Looking at the results, the land uses expanding at Alewife today appear to produce more in taxes and generally cost less to the City than the more land intensive industrial uses which are being displaced. From a municipal cost standpoint, then, current Alewife trends would also seem to be encouraging.***

Table 2: Assessed Valuation — 1978 Alewife Land Uses

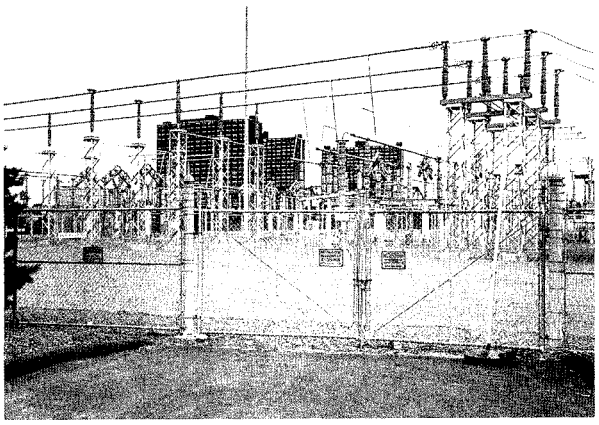
Land Uses	Assessed Value in Thousands	Assessed Value/Sq. Ft.
Hotel	670.1	$3.14
Heavy Industry	2,746.5	2.01
Light Industry	1,290.2	1.58
Open Space/Recreation	11.7	0.06
Research & Development/ General Office	6,480.1	5.60
Retail	2,304.3	1.91
Residential: 1-3 units	498.1	1.28
Residential: Apartments	5,286.0	5.88
Service	1,793.6	2.36
Transportation/ Utilities/ Communications	852.3	0.84
Vacant	829.4	0.35
Warehouse/Wholesaling	4,928.4	1.43
Total	**$27,700.7**	**$2.00**

Table 3: Tax Revenue Generated by Cambridge Land Uses Compared to $1.00 Cost for Municipal Services*

Use	Revenue to Cost Ratio**
Housing	0.50
Stores	1.43
Auto Related Retail	5.49
Wholesale	1.65
Factory	2.39
Technical Office	1.84
General Office	3.01
Utilities and Communication	32.74
Recreation	.20
Hotels	3.44
Parking Lots	17.67
Vacant Land	2.55
Warehousing and Trucking	5.49

*City of Cambridge Cost-Revenue Study — Part I 1976

**Ratio of 1.00 or more means land use pays more in taxes than it costs the City of Cambridge in municipal services.



42. Boston Edison Transformer Yard
Utilities demand few municipal services in return for taxes. However, they contribute little to the visual environment and create few jobs.

Improvements Already Planned

The face of Alewife will change dramatically in the next few years, even without an Alewife Urban Design Plan , as various state agencies begin long awaited transportation projects.

They include the following:

1. Route 2 Ramps — The Massachusetts Department of Public Works is presently conducting environmental studies preparatory to beginning design of new roadways at Alewife. Ramps from Route 2 are intended to channel MBTA-bound traffic directly into the new Alewife station complex, by-passing congested Alewife Brook Parkway. A major benefit to the City of Cambridge is that traffic destined for the triangle area will also have direct access to Route 2. Completion of the Route 2 ramps are expected to coincide with the opening of the MBTA facility.

2. Route 2 Rotary — As part of the Alewife highway project, the dangerous rotary at Dewey and Almy Circle is scheduled to be replaced with a signalized "T" intersection, with new access into the W. R. Grace Company area.

3. New Alewife MBTA Station — After years of planning, the MBTA's Red Line Extension is now under construction. The Alewife Station complex as proposed includes a 2000-car parking garage, a major bus station, and an underground transit station with entrances on both sides of Alewife Brook Parkway.

4. Rindge Avenue Intersection — In response to Cambridge's desire to prohibit through traffic on Rindge Avenue, the MBTA will redesign and construct a new Rindge Avenue/Alewife Brook Parkway intersection to prohibit physically most through traffic on Rindge Avenue.

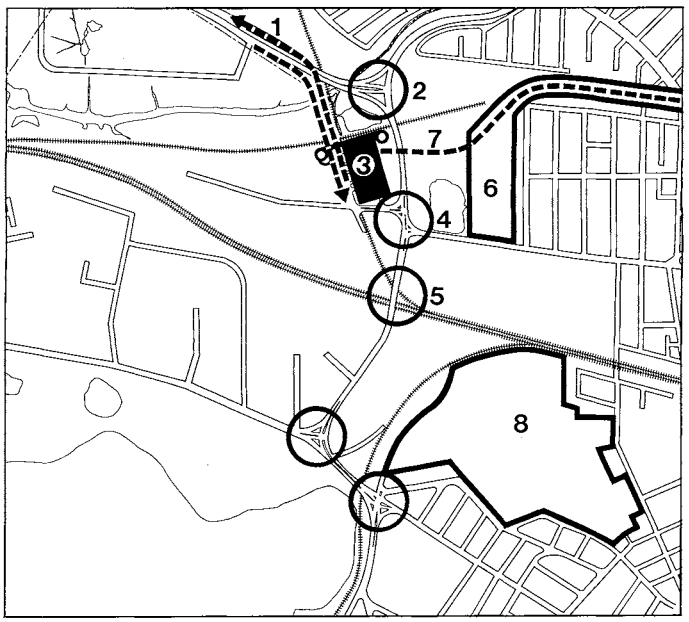
5. Fitchburg Mainline Bridge — The MDC's aging parkway bridge, long closed to truck traffic because of its poor condition, is now being redesigned with replacement planned in the near future.

6. Russell Field — The MBTA will construct new neighborhood open space on the site of the present city football field in return for its use as a construction staging and storage area during Red Line construction.

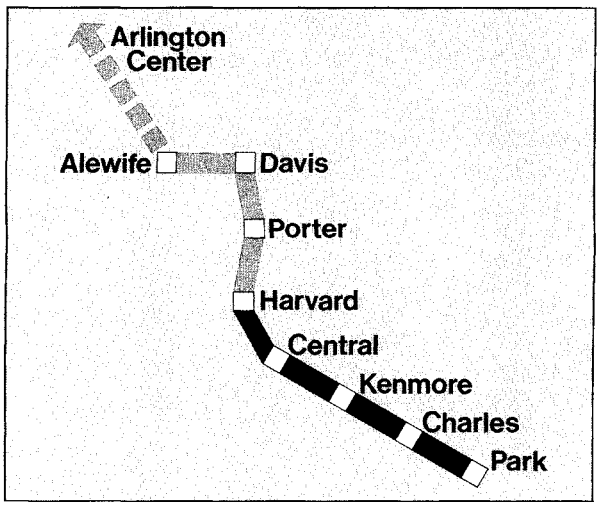
7. North Cambridge Linear Park — After the Red Line tunnel along the Fitchburg Freight Railroad Line is completed, the surface will be landscaped into a new city park connecting residential areas with the new Russell Field and transit station.

8. Cambridge City Dump — Also as part of the Red Line project the MBTA will provide the fill and money necessary to convert the 55-acre unused city dump into a new high school athletic complex containing practice and play fields for all city school sports. Additional land will be available for passive recreation areas.

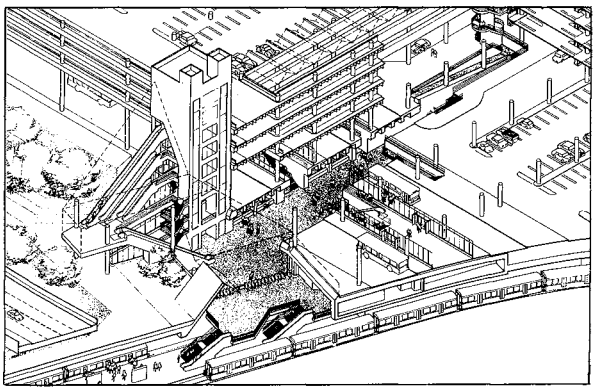
Other Alewife changes, unrelated to the Red Line, are also being investigated. For example, the City of Cambridge is attempting to persuade the M.D.C. to replace the two dangerous Concord Avenue rotaries with more efficient, signalized intersections. Also, the recent completion of the Fresh Pond Master Plan will enable the City to begin gradual improvement of this important regional open space resource. As a result of all these physical improvements the entire Alewife area will become more attractive for development.



43. Improvements in Various Stages of Planning and Construction
1. *direct ramps from Route 2 to the new Alewife station;* **2.** *signalized intersection to replace the present rotary;* **3.** *new MBTA station and 2000 car parking garage;* **4.** *redesigned Rindge Avenue intersection to prohibit through traffic;* **5.** *new MDC parkway bridge;* **6.** *MBTA-financed linear park and Russell Field re-use;* **7.** *new Red Line subway;* **8.** *new City athletic facilities on old dump site. Unnumbered circles show signalized intersections suggested by City of Cambridge.*

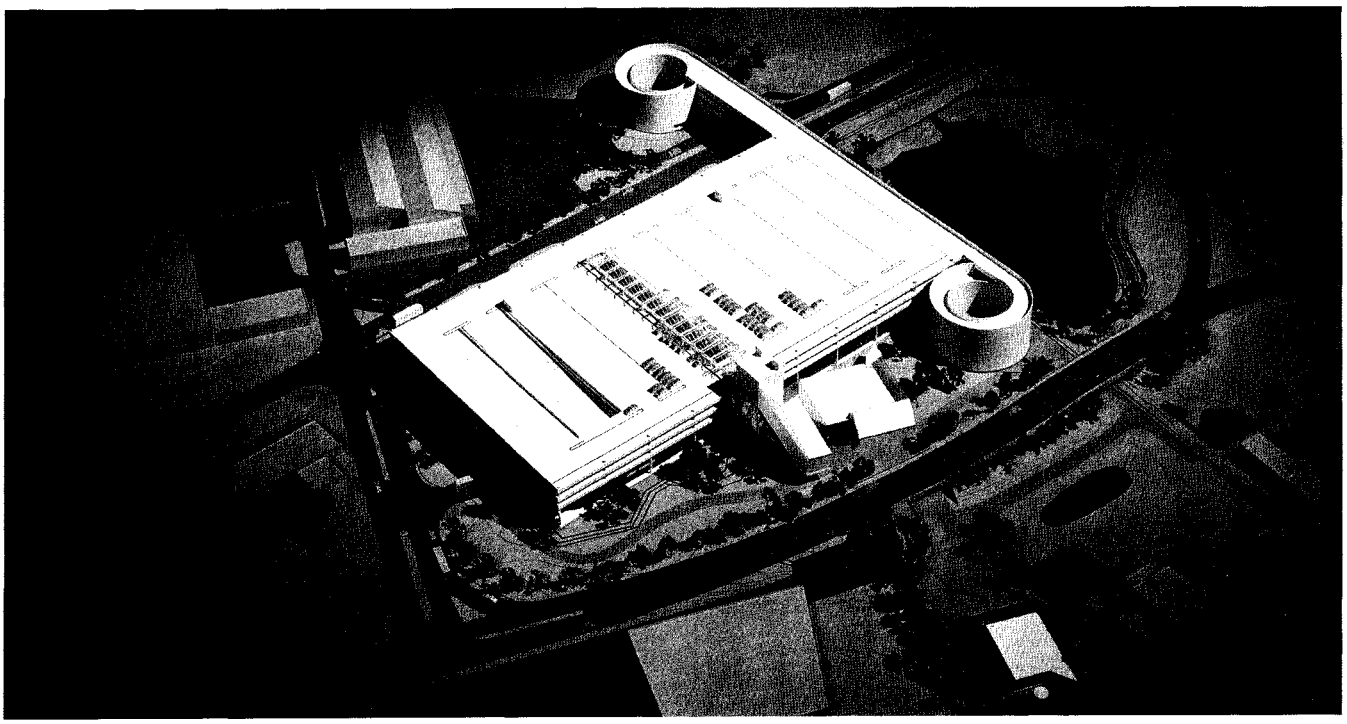


44. MBTA Redline Route
Black shows the existing system, solid gray indicates the extension presently under construction, and dashed gray represents proposed future extension.



46. Section through Alewife Station and Garage

45. Model of Future Alewife Station and Garage Complex
The 2000 car parking facility and transit station is planned to be opened in 1982-83. (Model courtesy of MBTA and Wallace, Floyd, Ellenzweig, and Moore Architects.)



Alewife's Development Potential

It is difficult for the casual observer to grasp the tremendous size and growth potential of the Alewife area. Alewife is approximately equal in total size to Boston's entire Back Bay district. Although Back Bay took 50 years to be developed as planned, it continues to change today. It is easy to see, then, that developing Alewife will be a long process that may never be completed; but, just as in the case of Back Bay, it is important to establish a planning structure early to guide development along advantageous lines.

Change is already underway. The type and scale of new Alewife building activity is strikingly different from past Alewife construction, and the pace of change appears to be accelerating. An example is the Abt Associates office research complex on Wheeler Street, beginning its fourth expansion. The Abt complex features quality architectural design, special landscaping, and recreational amenities. Bolt, Beranek and Newman's new 90,000 square feet research and development facility on Concord Avenue, completed in 1975, is another example of innovative and well-designed development. In 1978, five businesses announced intentions either to construct new facilities at Alewife or to rehabilitate existing buildings. Other major landowners are beginning to discuss publicly large scale development projects.

What makes Alewife so attractive as a development area? There are a variety of factors:

1. Valuable, Underutilized Land and Buildings
Alewife has 37% of the industrially-zoned land in Cambridge, but only 10% of the total industrial floor space. Overall, it contains 21% of all non-residential land in the city, but only 12% of the total non-residential floor space (see Appendix Two, Table 7). As heavy industrial activities at Alewife begin to decline, new opportunities are created for the reuse of valuable land and buildings.

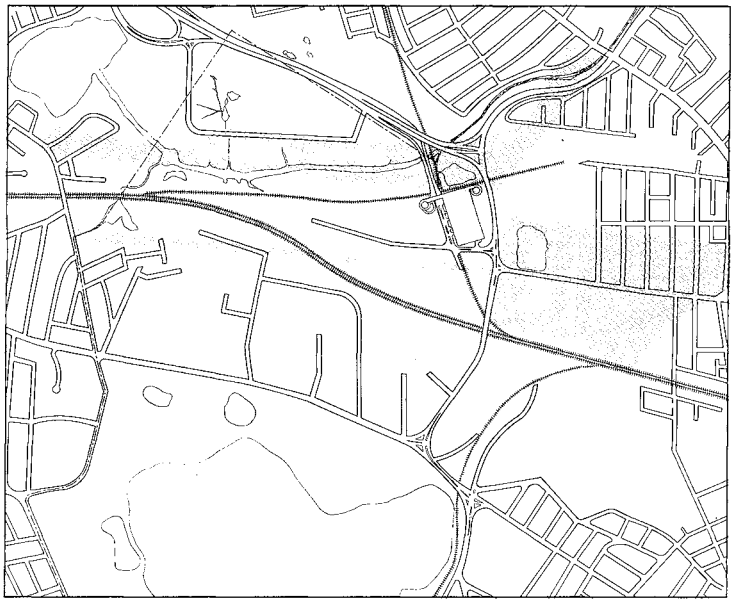
2. Large Parcel Land Ownership
There are only about 100 land parcels at Alewife ranging in size up to 25 acres, with an average size of 2.5 acres. This encourages larger scale development because land assembly, normally a complicated and costly process involving many different landowners, is either simplified greatly or unnecessary.

3. Available Vacant Land
Sixty-eight of Alewife's 370 acres are currently vacant and available for immediate development. These acres, under existing zoning, represent 7,728,000 square feet of untapped development potential. This is about two times more than the total built floor space at Alewife today.

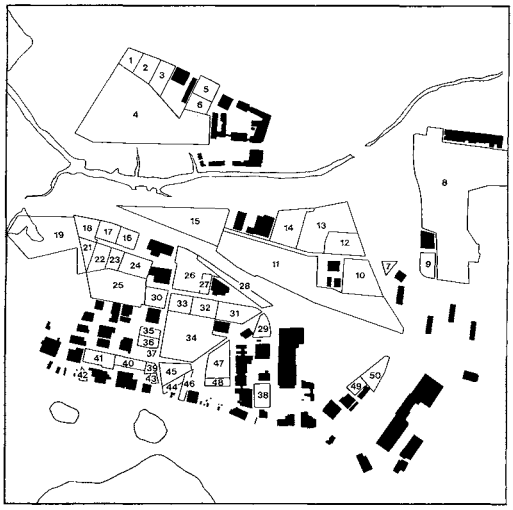
4. Good Market Prospects
Gladstone Associates, a professional real estate marketing consultant, examined the question of market prospects for Alewife development in a 1977 study done in conjunction with the MBTA Red Line extension. Forecasting for the period to 1985 only, Gladstone found a market at Alewife for up to 3300 units of housing, 700,000 square feet of office space, 560,000 square feet of retail space, 500 hotel rooms, and 50 additional acres of industrial development — *with* or *without* the Red Line extension. Gladstone cites as the reasons "excellent highway access, availability of land, and the area's ability to attract regional-serving, large-scale uses" (see Appendix Two, Table 8).

Hard/Soft Analysis

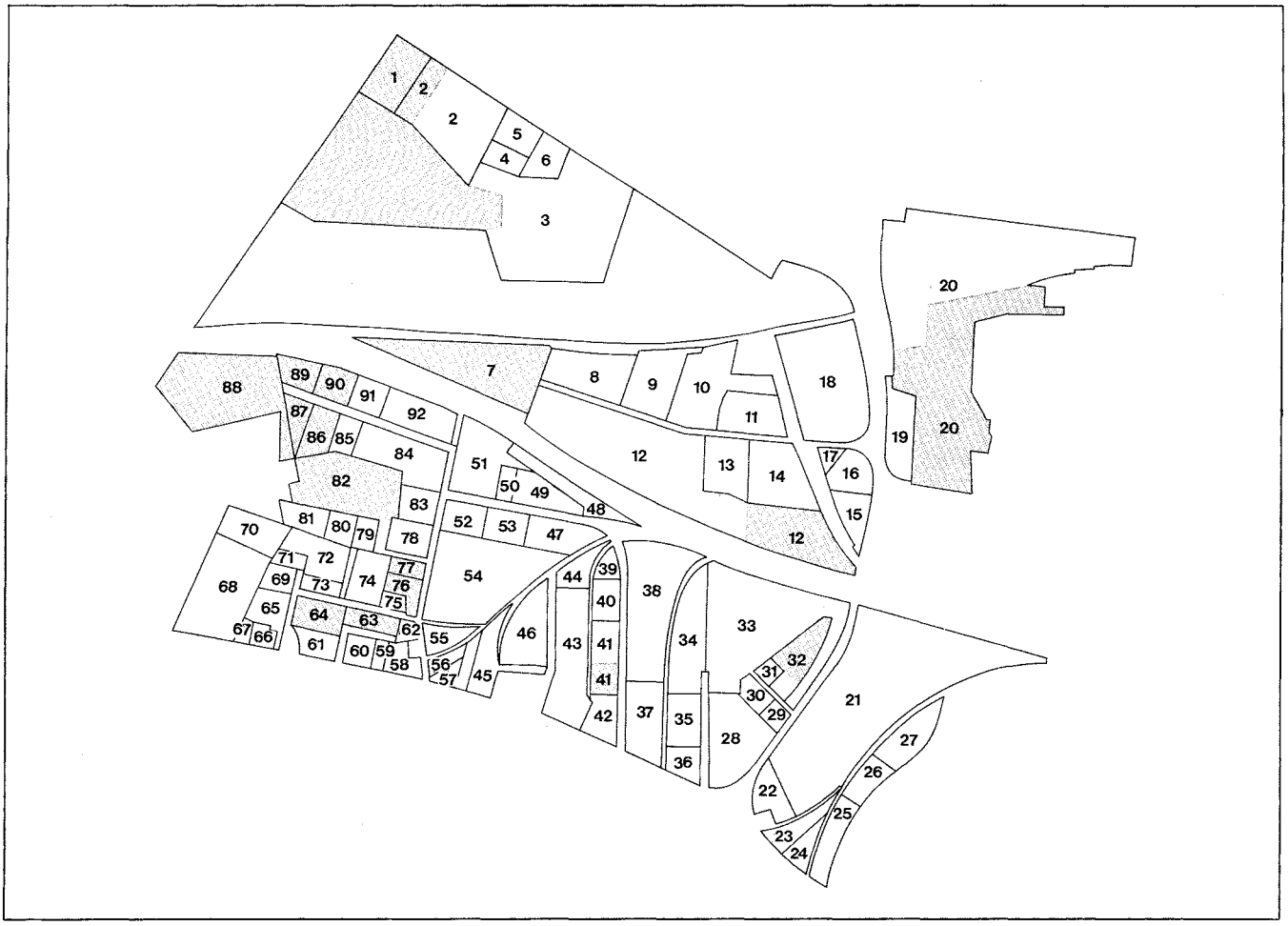
To identify the magnitude of change that might occur in Alewife in the next years, a determination must be made about which parcels will be susceptible to development pressures. The usual method is a "hard/soft" study. First the study estimates the "hard" land uses that are likely to remain over the next decade; then it estimates "soft" uses which are likely to be replaced by new development. Utilizing factors such as age and condition of existing structures, parcel size, and stated intentions of property owners, 50 Alewife parcels were identified as prime development sites (see Figure 49). These parcels represent approximately 125 acres of land, and they form the basis for the projected land use changes and proposed zoning districts in the Alewife Urban Design Plan.



47. Back Bay Size Comparison
Alewife is about the same size as Boston's Back Bay from the Public Garden to Massachusetts Avenue. The diagram shows a map of Back Bay laid over the Alewife area.



49. Parcels Most Likely to Develop
Black figures show buildings expected to remain. Outlined areas are "soft" parcels thought susceptible to development forces.



48. Land Ownership
Shaded areas are vacant parcels ready for immediate development. Information on the size and ownership of parcels is included in Appendix Two, Table 10.

The Urban Design Plan

Introduction

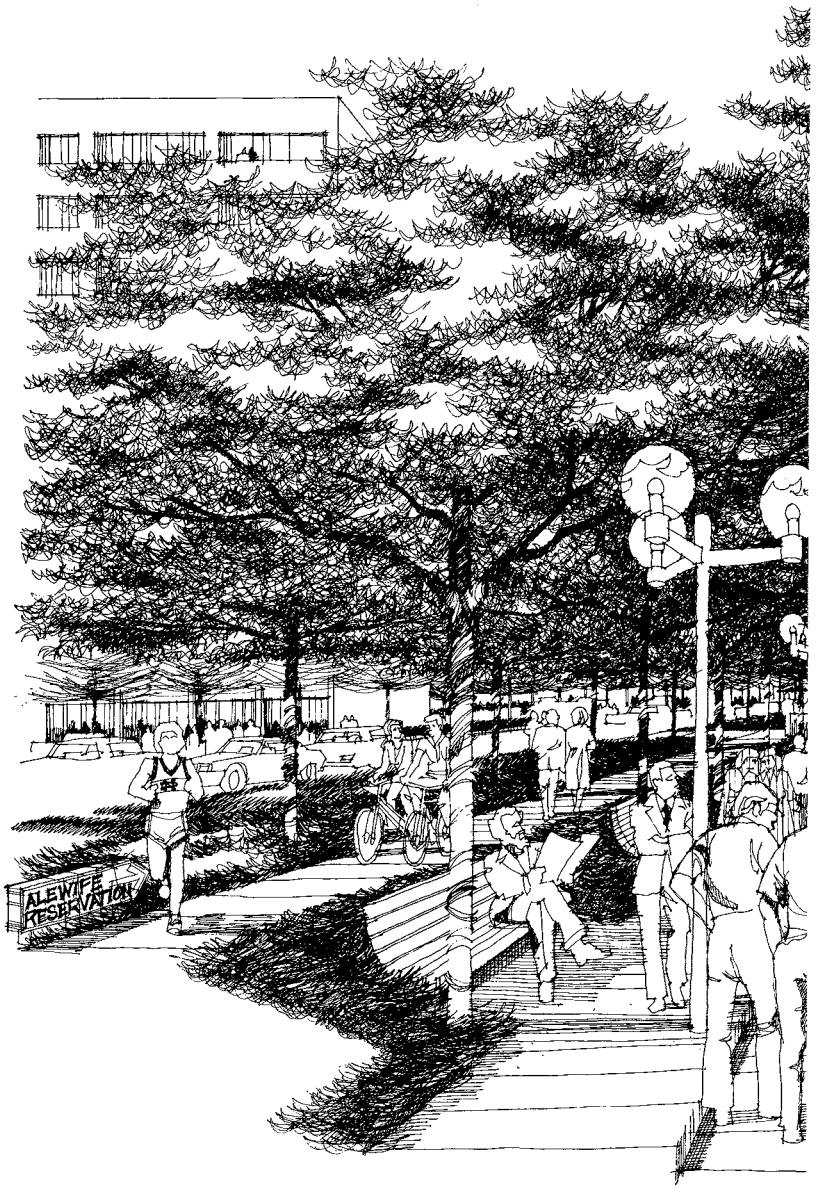
The Alewife Urban Design Plan is not a blueprint for physical change of the Alewife area. It is instead a framework for advantageous and profitable development by private landowners which can also yield significant benefits to all Cambridge citizens by creating new job opportunities, by significantly increasing the city's tax base, by removing visual blight and ecological hazards, and by adding to the useable open space in the area. In short, it could build a better Alewife working and living environment for everyone.

Since the days of massive urban renewal projects are over, the Alewife Urban Design Plan depends on a partnership between public and private interests to remake Alewife. In addition to proposing specific physical changes, the plan suggests a way in which to coordinate public and private decision-making. A successful partnership would create a renewed and vital office/commercial/industrial center for Cambridge.

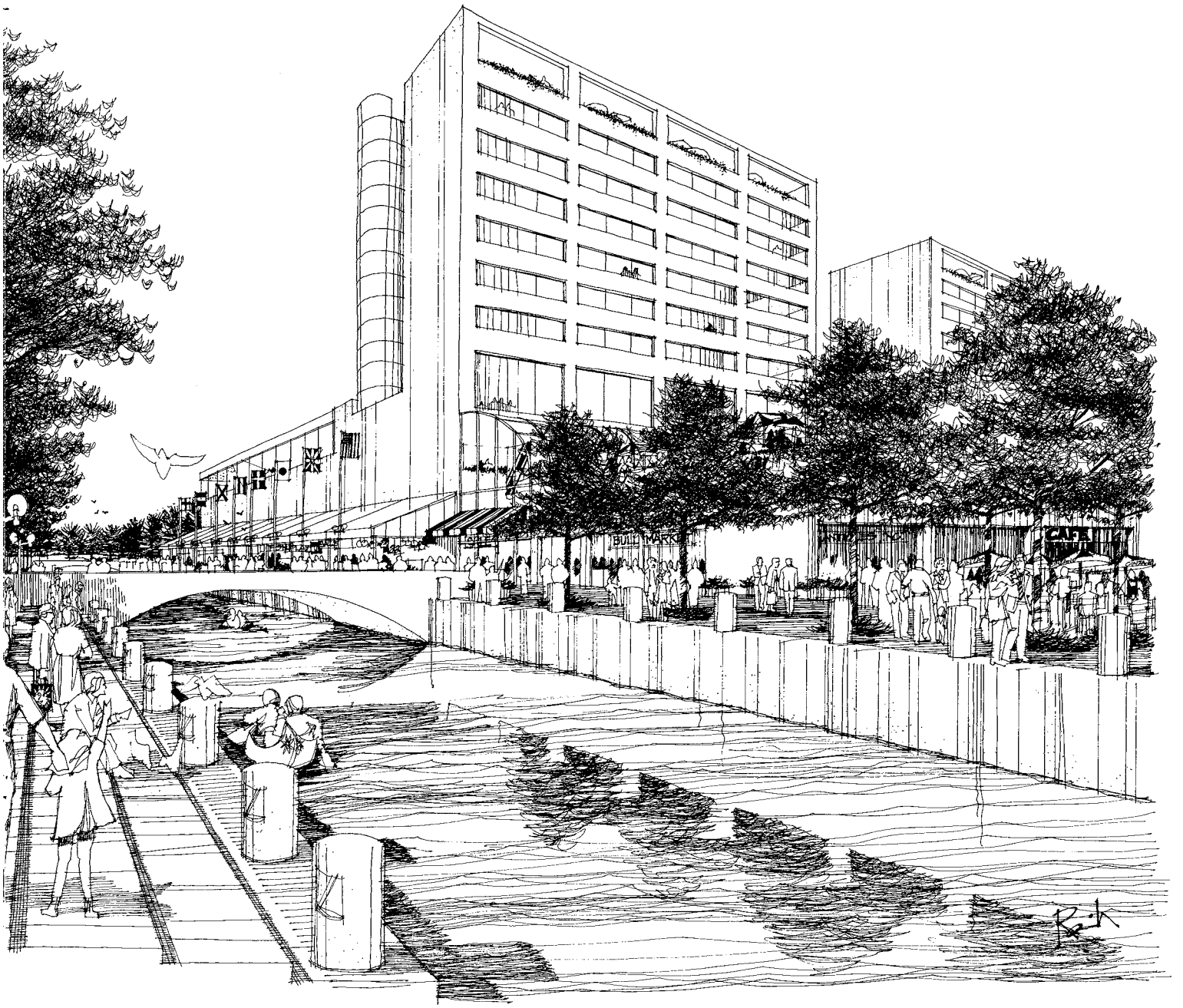
Previous Alewife Studies

Planning necessitates making assumptions about a desirable future. In the case of Alewife, identifying people's desires for change and the potential of the area is not difficult: there has been a long public planning process about Alewife, and many previous studies have been produced. The proposed Urban Design Plan builds on lessons learned during discussions about Alewife's future over the last few years involving the Alewife Task Force, the Alewife Businessmen's Association, North Cambridge and Cambridge Highlands residents, and city, regional, and state planning officials. Incorporated in whole or in part in the Plan are the recommendations contained in the Alewife Task Force Land Use Report, the Alewife Urban Design Study Phase I Report, the Harvard-Tufts Student Team's Alewife Park Study, the Alewife Task Force Open Space Sub-committee Report, as well as various state and local technical reports. The debt of the Alewife Urban Design Plan to these preceding endeavors is gratefully acknowledged.

Utilizing the recommendations which surfaced during the Alewife discussions, it is possible to distill a list of general goals to guide formulation of an Alewife Urban Design Plan.



50. Rendering of Alewife Canal
Among the proposals of the Urban Design Plan is the creation of a canal from Alewife Brook. The canal would create an inviting pedestrian environment and serve as a focus for a variety of outdoor recreation activities: jogging, bicycling, boating, and other leisure pursuits. View is from Alewife Boulevard looking toward the Alewife Reservation.


BULL MARKET
CAFE

Goals of the Plan

1. Encourage appropriate development. Land use change at Alewife should take advantage of Cambridge's worldwide reputation as a center for research and development. Research and development firms, laboratories, technical offices and related light manufacturing are highly supportable land uses. They should be allowed in the zoning and emphasized most heavily in private promotional activities.

2. Discourage inappropriate development. There is considerable land available for development at Alewife and it comprises one of the few remaining economic growth areas in the city. This land should not be wasted on uses which are either undesirable or more appropriate elsewhere. Heavy manufacturing, extensive warehousing, major retailing, and service uses such as auto repair should be prohibited or substantially restricted. Housing, while it may be appropriate in some locations, should generally be restricted.

3. Upgrade the image of the area. Visually, much of the Alewife industrial area is blighted and confusing to the un-initiated. The character of the area is not that of a high quality office and industrial park. Improving the area's physical image is essential, especially at the edges and entrances. An improved circulation system, better parking arrangements, more landscaping, and better site planning will encourage high quality development. This will result in sound economic growth as well as an improved image.

4. Limit the scale of development. Existing Alewife development is about one-eighth of what could be built under existing zoning. Massive development is undesirable, however, because of the impacts it would have on roadways, public services, natural areas and nearby neighborhoods. Substantially more development than exists today can be accommodated, but it is in everyone's interest that it be more closely regulated. Development should occur in appropriate areas and at appropriate densities and heights.

5. Protect residential neighborhoods. Fortunately, most of Alewife is isolated from residential districts, thereby avoiding the conflict of larger scale non-residential development occurring next to established neighborhoods. Areas such as Cambridge Highlands, near the Tobin School, and along Alewife Brook Parkway require closer regulation. The range of allowed uses should be limited, and the scale of development should be reduced to provide a gentle transition from residential to non-residential areas.

6. Protect public open space. Alewife industrial area is surrounded by public open space: the Alewife Reservation, Fresh Pond Reservation, and the proposed city parks. This proximity creates both opportunities and problems. On the one hand, nearness to park land and its amenities enhances developability. On the other, the fragile nature of such resources requires that special safeguards be taken. Any new development near Alewife public open space should be sensitive to impacts on these natural systems.

Conclusion

Managing Alewife's future in an intelligent way is the task set for the Alewife Urban Design Plan. If the plan works as expected, it could yield as much as $300,000,000 in new building construction, 8500 construction jobs, as many as 18,000 new permanent jobs, and an expansion of the City's tax base up to $21,000,000. Equally important, however, Alewife development will not be at the expense of the area's natural environment nor create unanticipated demands upon municipal services.

The Alewife Urban Design Plan will be discussed in four major sections. Each of these is an important component in the plan to improve Alewife:

A. Roadway and Infrastructure Improvement Program
B. Open Space Improvement Program
C. Development Policies
D. Growth Management Program

A. Roadway and Infrastructure

The Alewife Urban Design Plan begins by addressing long-standing public infrastructure (street, sewer, and water) problems. Alewife's streets, like its buildings, evolved in an incremental and unplanned fashion over the last four decades. In many areas continuous asphalt paving extends from building to building with no delineation of the public right-of-way. In others, streets are connected only through parking lots or private ways. Needless to say, most streets are below City standards for width, curbs, gutters, storm sewers, sidewalks, street trees, and lighting. The sewer and water system is in a similar state. The general impression of Alewife projected from its public space is that of a run-down area.

The Urban Design Plan suggests changing that image. A whole new roadway system, built to acceptable standards must be designed and constructed, and an upgrading of storm and sanitary sewers as well as water service must be undertaken.

Alewife's new roadway system should feature both local streets and new arterial streets. In order to function properly it should complete the missing connections between streets and create a link over the railroad lines to Route 2 and the regional highway system. Investing in new roadways and municipal services is the first step in revitalizing Alewife.

51. Rindge Avenue Extension
Many streets in Alewife are presently inadequate to service existing businesses or possible future development.

52. Concord Avenue along Fresh Pond Reservation
Area roadways lack adequate sidewalks, tree plantings, and other public amenities.

53. Example of Improvement Possible: Alewife Boulevard
Adding additional right-of-way to existing streets could result in a pleasant, safe, and more efficient circulation system.

Program Elements

The major features of the roadway and infrastructure improvement program are:

1. Route 2 Access Road
As explained earlier, the Massachusetts Department of Public Works is planning to construct a connecting ramp from Route 2 to the new MBTA station/garage complex at Alewife. That ramp will also connect to the Rindge Avenue Extension in the Triangle. The Route 2 ramp is critical for the long-range development of Alewife because it provides industrial area traffic with direct access to the regional highway system, bypassing Alewife Brook Parkway.

2. Alewife Brook Parkway
Parkways were originally intended as travelways within a parklike setting. Today we find that Alewife Brook Parkway has become just another heavily-traveled traffic artery. There are few trees and much of the original right-of-way has been lost to parking lots or private use. Unsightly development has been allowed to spring up nearby. Alewife Brook Parkway has the potential of becoming "park-like" again, with landscaping, pedestrian paths, and visual amenities, if the City and the Metropolitan District Commission act in concert. The first step in turning the parkway around has been taken by the MDC.

The ailing and unsightly Fitchburg railroad bridge is under design for replacement. Now, it is up to the City to more effectively regulate adjacent land uses so as not to detract from the parkway. The MDC may then take further steps to improve the open space within the parkway right-of-way, and to reclaim it as a link in the regional open space system.

3. Concord Avenue
Concord Avenue, the major roadway serving the Quadrangle, is also the major entry into the City from Belmont. The Avenue today is four lanes wide with highly contrasting uses and forms on its two sides. The north side contains mostly one- and two-story industrial or commercial buildings without landscaping, setbacks, or trees. The south side, Fresh Pond Reservation, contains beautiful trees along most of its length, but only a small dirt path for pedestrians instead of sidewalks. Both sides clearly need to be improved for public use.

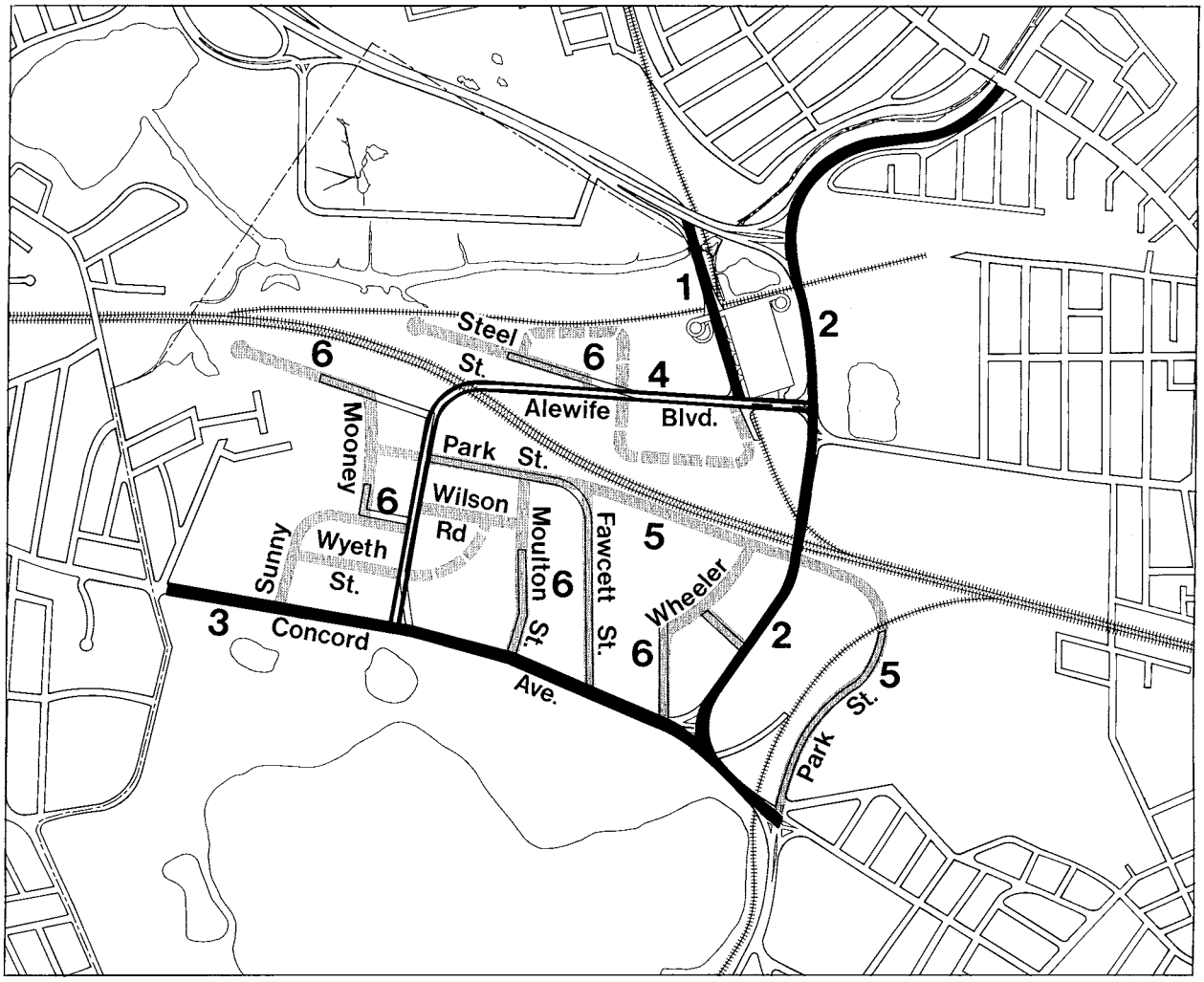
It is proposed that Concord Avenue be treated as a parkway, much like the Alewife Brook Parkway, with special design provisions. Its four travel lanes would be divided by a planted median strip, and new street trees would be provided on the entire length of both sides. A bicycle path and sidewalk would also be constructed on the Fresh Pond side as a complement to the reservation's recreation activities. Altogether, these changes would create an attractive "gateway" to Cambridge and do much to upgrade the image of the Alewife area.

4. Alewife Boulevard
The centerpiece of the proposed Alewife local street system is the replacement of Rindge Avenue Extension and Smith Place with Alewife Boulevard. Alewife Boulevard would be the major new local artery — a four-lane street with a landscaped median. Most importantly, it would connect the Quadrangle and the Triangle across the Boston and Maine tracks, thereby linking the Quadrangle areas directly to Route 2 via Ramp Street, and the Triangle parcels to Concord Avenue. The present intersection of Concord Avenue and Smith Place would also be improved to accommodate the new Boulevard.

An Alewife Boulevard would serve several functions. First, it would serve to organize local traffic circulation into safer and more efficient patterns. Next, it would relieve some of the traffic pressures on Alewife Brook Parkway by allowing industrial area traffic to reach Route 2 directly. Since it would parallel much of the land now available for development, it would promote development in those areas. Finally, it would be a new visual amenity running through the center of the whole Alewife area.

5. Park Street
Just as Alewife Boulevard would serve as the main north/south connector for Alewife, a proposed new roadway called Park Street would serve as the east/west link. Park Street, a four-lane undivided roadway, would be created out of New Street, part of the Fresh Pond Shopping Center parking lot, and some of the B & M railroad right-of-way. It would connect Alewife Boulevard with the Shopping Center and Fresh Pond Parkway (the design of the new MDC parkway bridge allows sufficient width under the bridge to accommodate a new street). Park Street would provide parallel service to Concord Avenue, bypassing one of the rotaries (or signalized intersections if they are replaced). It would also connect Alewife employment areas with the major Alewife shopping area, and with the new "City Park" recreation area.

6. Local Streets
Besides major roadways, improvements are also suggested for Alewife's smaller streets. Better access must be provided to interior industrial areas which are poorly served today. The proposed plan indicates two types of street improvements: upgrading existing streets to city standards and the construction of new streets on designated private ways or unused railroad spurs. The suggested network is the result of discussions with area landowners, area planning studies and professional traffic and engineering analysis. As planning studies continue, new links may be added and some of those now proposed may be deleted. The important objective is to end up with a workable local street circulation system.



54. Roadway Improvement Program
Numbers are keyed to discussion of proposed improvements in text.

Program Costs

The costs of completing the proposed Alewife Roadway and Infrastructure Improvement Program — streets and roadways, sewer and water lines, landscaping and street lighting — have been estimated using professional engineering criteria by the Cambridge Public Works Department.

Some of these costs may be underwritten by private landowners and developers either through right-of-way contributions or actual construction of some roadway segments, since private landowners stand to gain directly from improved access and utilities. The high cost of extensively reorganizing and rebuilding Alewife's streets and roadways means that implementation will undoubtedly have to be undertaken in phases, as money and right-of-way become available, but the result should be well worth the wait.

Table 4: Alewife Roadway Improvement Costs

Street Name	Total Improvement Costs
Sunny Road	$ 924,000
Wilson Road	331,000
Mooney Street	1,004,000
Wyeth Street	375,000
Moulton Street	466,000
Fawcett Street	333,000
Wheeler Street	409,000
Park Street	3,106,000
Concord Avenue	2,074,000
Steel Street	773,000*
Alewife Boulevard	4,500,000*
	$14,295,000

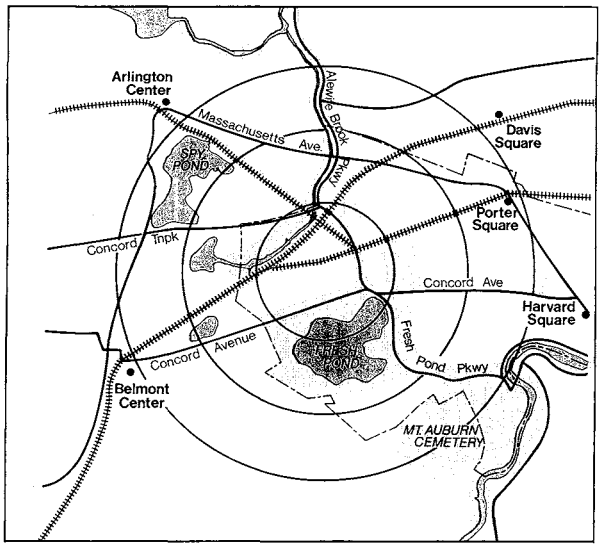
NOTE: These figures include engineering and contingency costs, and building demolition costs.

* Approximate estimates only using engineering rules-of-thumb.

B. Open Space

Today Alewife stands as the missing link in a series of open spaces which could be connected into a regional system, much like Boston's Emerald Necklace. A system of open spaces, parks, and parkways could begin at the Charles River and extend across Mount Auburn Cemetery to Fresh Pond Reservation. With improvements to Alewife Brook Parkway, the network could link the Alewife reservation with Spy Pond in Arlington, and the open space corridor along Alewife Brook Parkway to the Mystic River. Open space could also be incorporated into private development.

Alewife would then become the center of a new open space system. Links would exist to Belmont Center, Arlington Center, Porter Square, and Davis Square. Area residents could easily reach Alewife to work, shop and play. Realizing Alewife's full potential depends on a comprehensive Open Space Improvement Program.



55. Regional Open Space System
Alewife has the potential to become the focus of a regional open space system.

56. Olmstead's Emerald Necklace
Boston's open space system is an example of Alewife's potential value as a regional open space resource.

Program Goals

The major goals of the Open Space Improvement Program are:

1) to encourage the evolution of an open space network through coordinated development of public and private open space;
2) to continue to preserve and manage existing open space areas such as Fresh Pond and Alewife Reservation;
3) to create open space linkages to adjacent neighborhoods, park areas, and commercial centers;
4) to encourage landscape screening between new development and public open space;
5) to protect wetlands from the impacts of new development as directed under the Massachusetts Wetlands Protection Act;
6) to insure that development within the 100 year flood plain does not adversely impact the natural systems of the area or lead to increased flooding; and
7) to encourage developers to adequately site-plan, and landscape property to improve the environmental character of Alewife.

57. Junction of Alewife Brook and Little River
One of the goals of the open space improvement plan is to conserve and improve existing natural resources.

Program Elements

Applying the above goals on an area-by-area basis, it is possible to identify a series of public and private actions that would convert Alewife from an underutilized industrial area into a major regional open space resource.

1. Alewife Reservation

The Alewife Reservation is 115 acres of open space which the Metropolitan District Commission has done little to improve as a natural resource. A combination of wetlands, shallow marshes, and abandoned agricultural fields, it is naturally turning into a shrub swamp, and much of its potential value will be lost if action is not taken.

Alewife Reservation offers the unique opportunity to create a wildlife/nature preserve in the midst of a highly urbanized area. This can only happen, however, if the MDC and the City of Cambridge plan now for the future of the reservation.

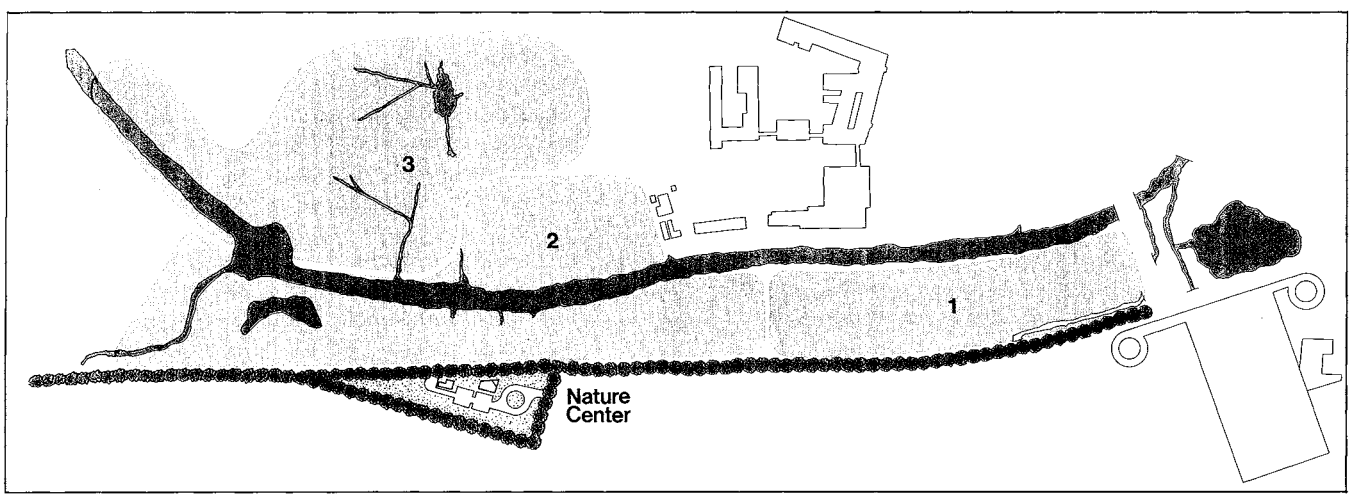
The Urban Design Plan proposes that the MDC improve the Reservation through the institution of a conservation management program. The management program would attempt to create a balanced ecological order, to improve the diversity of wildlife habitats, and to allow some passive recreation use of the reservation by humans. To succeed, the conservation management program would have to designate specific uses for different sections of the Reservation.

Area One, near Little Pond and Acorn Park Road (including Arthur D. Little Wetlands) should be maintained in its natural state as a "wildlife sanctuary." This area is the most crucial resource zone because it presently provides the most wildlife nesting areas. It is also the most sensitive to human intervention.

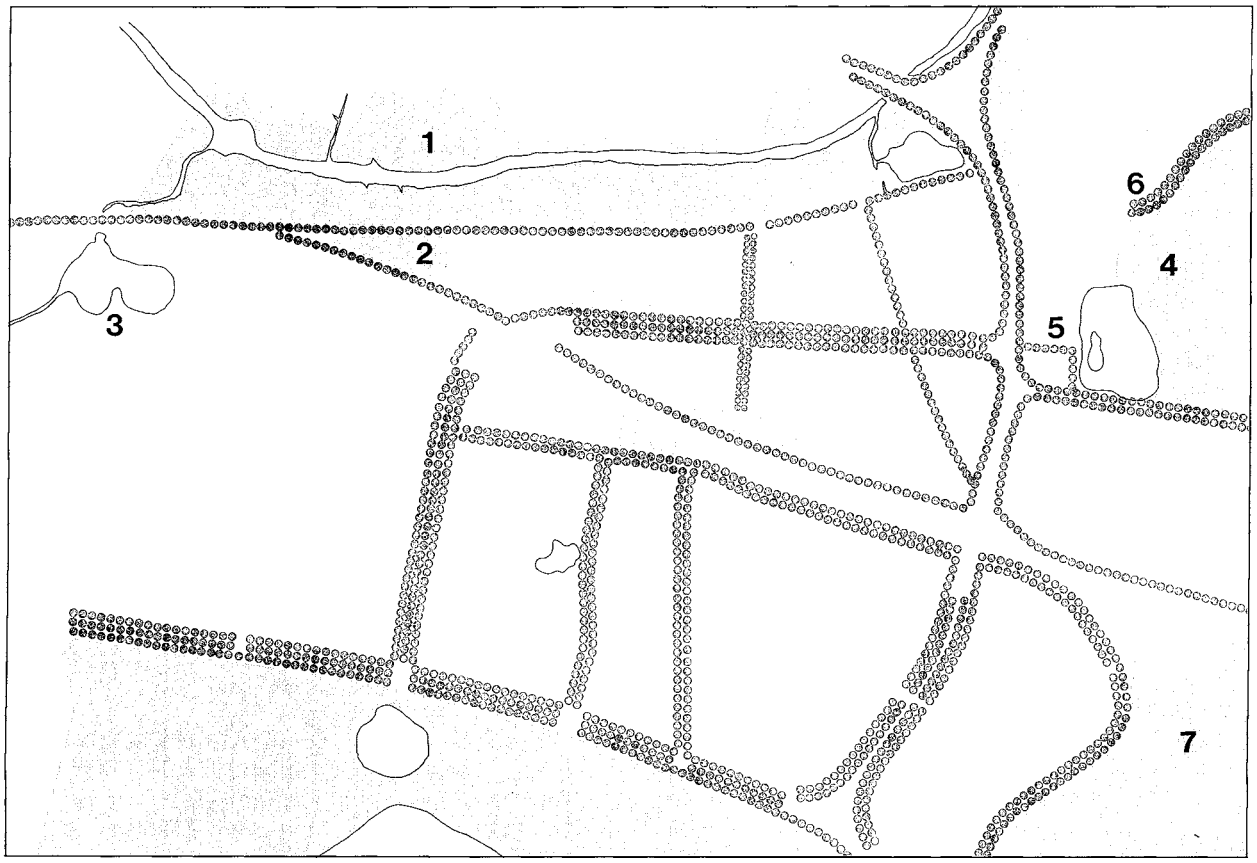
Area Two, which lies south of the Little River near the tip of the Triangle, should be developed as a "nature area." It should be planted with a diversity of appropriate plant species providing a variety of food and wildlife shelter opportunities. Informal paths and information markers would help visitors enjoy and understand the flora and fauna found in and near Massachusetts wetlands.

Area Three, located near the proposed MBTA transit station, would be developed as a passive recreation area. It would be designed to create a variety of edge habitats for wildlife between field and forest, forest and stream. This area would be enjoyed by visitors desiring to picnic, fly kites or stroll through the recreation areas of the reservation.

A conservation management program featuring ecosystem development, as contrasted with the present system of passive ecological succession, should create a unique environment in the Alewife Reservation. Designing for wildlife habitats should promote a rich and diverse wildlife population which can co-exist with and be enjoyed by everyone.



58. Proposed Conservation Management Areas in the Alewife Reservation



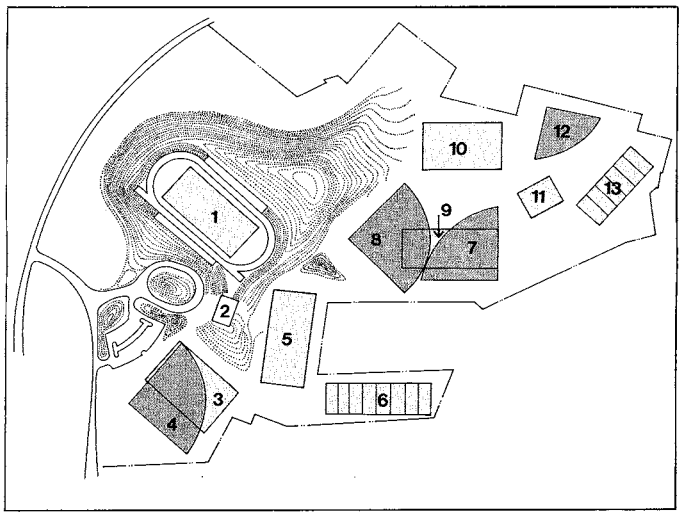
59. Open Space Improvement Program
Numbers are keyed to discussion of proposed improvements in text.

2. Alewife Nature Center
It is further proposed that the MDC or the City of Cambridge purchase one or two acres at the tip of the Triangle to provide a Museum to complement the Alewife Reservation nature areas. The museum could become the main visitor center providing information, convenient access, and off-street parking.

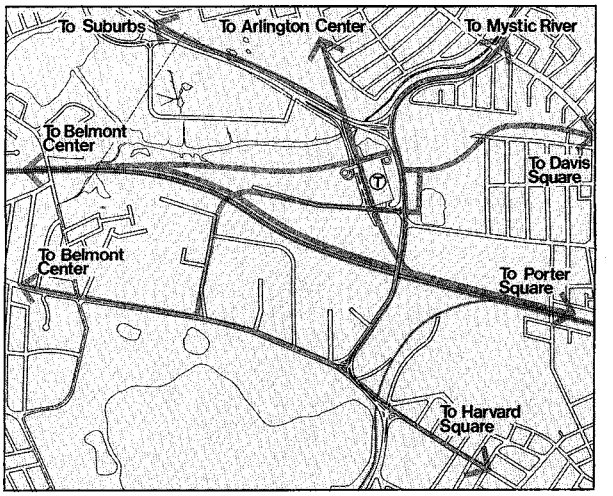
3. Blair Pond
Blair Pond and the Wellington Brook are a waterway and a wetland area near the Belmont town line. They are presently in private ownership. The Cambridge Conservation Commission and the Alewife Task Force have long been interested in securing public ownership of Blair Pond. The Program suggests that at least part of Blair Pond's edge remain accessible to the general public and that the entire waterbody and wetland be protected from development by a conservation easement.

4. Russell Field
After construction staging on Russell Field for the Red Line extension is completed, the MBTA has agreed to rebuild neighborhood open space on this 10-acre site. The exact nature of the facilities located there will be decided in consultation with the North Cambridge neighborhood. One part of the new neighborhood park on Russell Field will be a direct pedestrian connection from Dudley Street to the Alewife transit station's east entry. Access rights to the station through the W. R. Grace Company land will be preserved by the MBTA.

5. Jerry's Pond
Jerry's Pond is another Alewife waterbody presently in private ownership. The pond once served as a neighborhood recreation spot for ice skating and swimming. The Open Space Program proposes that Jerry's Pond be cleaned up and expanded to act as an amenity for nearby W. R. Grace Company development. The pond needs dredging, and its banks need easing and landscaping. It could also be stocked to promote fishing and boating activities. Eventually, Jerry's Pond should be acquired as public open space and be added to an expanded Russell Field Recreation Area.



60. Preliminary Plan for the Cambridge City Park
1. *Football and Track Field* **2.** *Field House* **3.** *Soccer Field* **4.** *Baseball* **5.** *Football Practice Field* **6.** *Tennis Courts* **7.** *Softball* **8.** *Baseball* **9.** *Soccer and Football Practice Field* **10.** *Soccer and Field Hockey* **11.** *Basketball Courts* **12.** *Existing Softball Field* **13.** *Tennis Courts*



61. Proposed Pedestrian and Bicycle Paths
Dark lines show potential pedestrian and bicycle paths which could connect Alewife with the surrounding region.

6. North Cambridge Linear Park

With the coming of the Red Line extension, railroad service on the Fitchburg Freight Cut-off through North Cambridge will be discontinued. After the tunnel for the subway is built along the right-of-way, it will be covered over, and the surface will be landscaped into a new city park. The new linear park will feature small play areas, plantings, open recreation areas, and pathways connecting North Cambridge residential areas with Davis Square, Somerville, the new Russell Field recreation area, and the transit station beyond. Again, final design of the linear park will involve the neighborhood.

7. City Park

Under an agreement between the City of Cambridge and the MBTA, some of the rock and dirt removed during Red Line tunnel construction will be brought to the 55-acre site of the old Cambridge City Dump, at the edge of Alewife. The City has long planned to convert this unused facility into a recreation area or park, and the Red Line extension presented an opportunity for the City to acquire large amounts of necessary excavated material to fill the dump. A professional geotechnical consultant was employed to determine surcharging requirements and steps necessary to deal with potential gas problems. A landscape design firm then developed the master plan for a new "City Park."

The new park will become the primary city-wide athletic complex, replacing the present one on Russell Field. It will feature one football field and track facility, an associated field house, five playfields for soccer or football, two baseball and three softball fields, 14 tennis courts, two basketball courts, and two totlots. The remainder of the area will be landscaped and planted appropriately. The entire cost for the athletic facilities will be paid by the MBTA in return for disrupting Russell Field.

8. Open Space Protection and Enhancement

The final element of the Open Space Program is the protection of existing open space and encouragement of new open space areas through local land use regulations. As will be explained in the zoning discussion, attempts will be made to rezone sensitive Alewife environmental areas to prevent future development. At the same time, special land use regulation techniques will be suggested to encourage private developers to incorporate the maximum amount of useable open space areas in new private development projects. Ultimately, the product should be a well-balanced, visually pleasing, and highly useable open space environment at Alewife.

9. Pedestrian and Bicycle Paths

Developing an open space system at Alewife involves not only the creation of recreation areas, but also connections between them. A path system for pedestrians and bicycles would:

1) visually and physically unify the area;
2) provide alternative passageways safe from the noise and hazards of automobile traffic; and
3) encourage alternative modes of travel to and from Alewife, thereby increasing its overall accessibility.

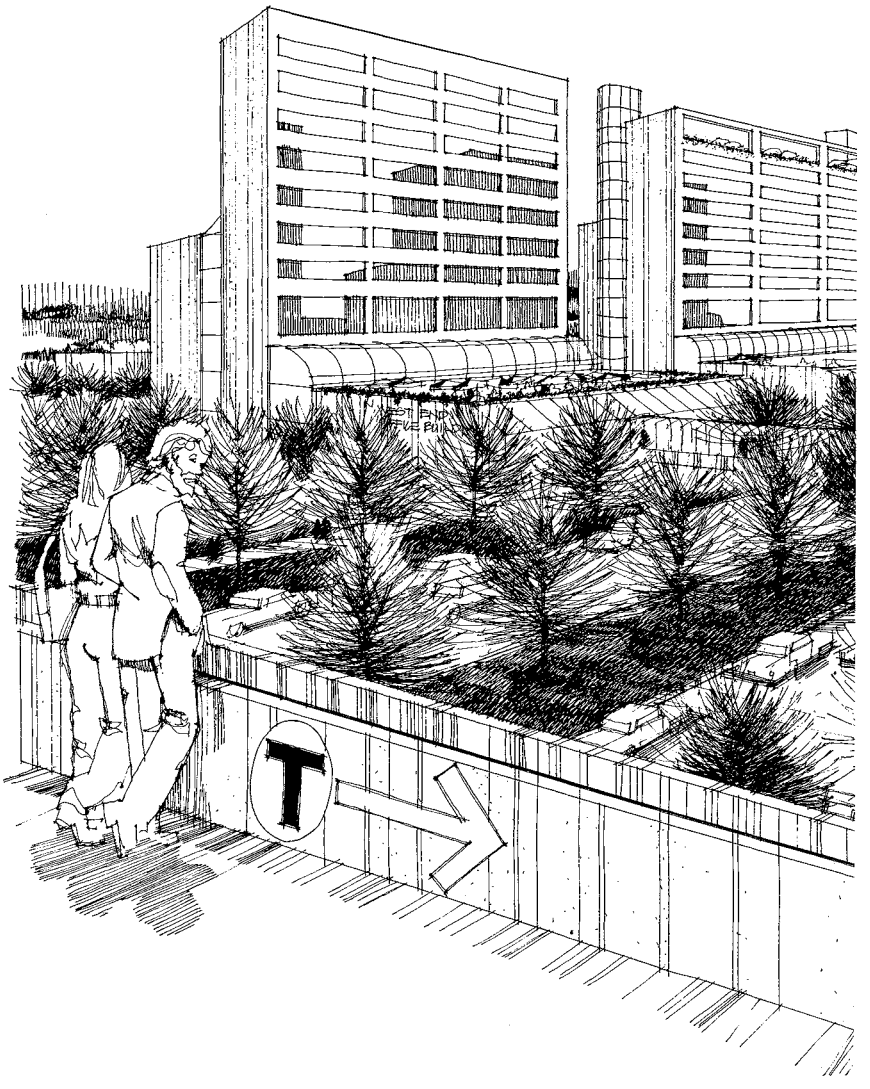
The Alewife Task Force Open Space Subcommittee completed a detailed study of an Alewife "path system." The Open Space Program has adopted many of their recommendations, adding other paths as the opportunity became available (see Figure 61). The path system would be realized by encouraging appropriate public agencies to acquire and maintain rights-of-way for pedestrian and bicycle use incorporating such rights-of-way in larger Alewife improvement projects.

C. Development Policies

Rather than create a "masterplan" for new development on a parcel-by-parcel basis, the Alewife Urban Design Plan proposes to establish a series of design principles and guidelines (with specific recommendations for a few key sites) to encourage appropriate development of the Alewife area. These design recommendations form the Development Policies portion of the plan.

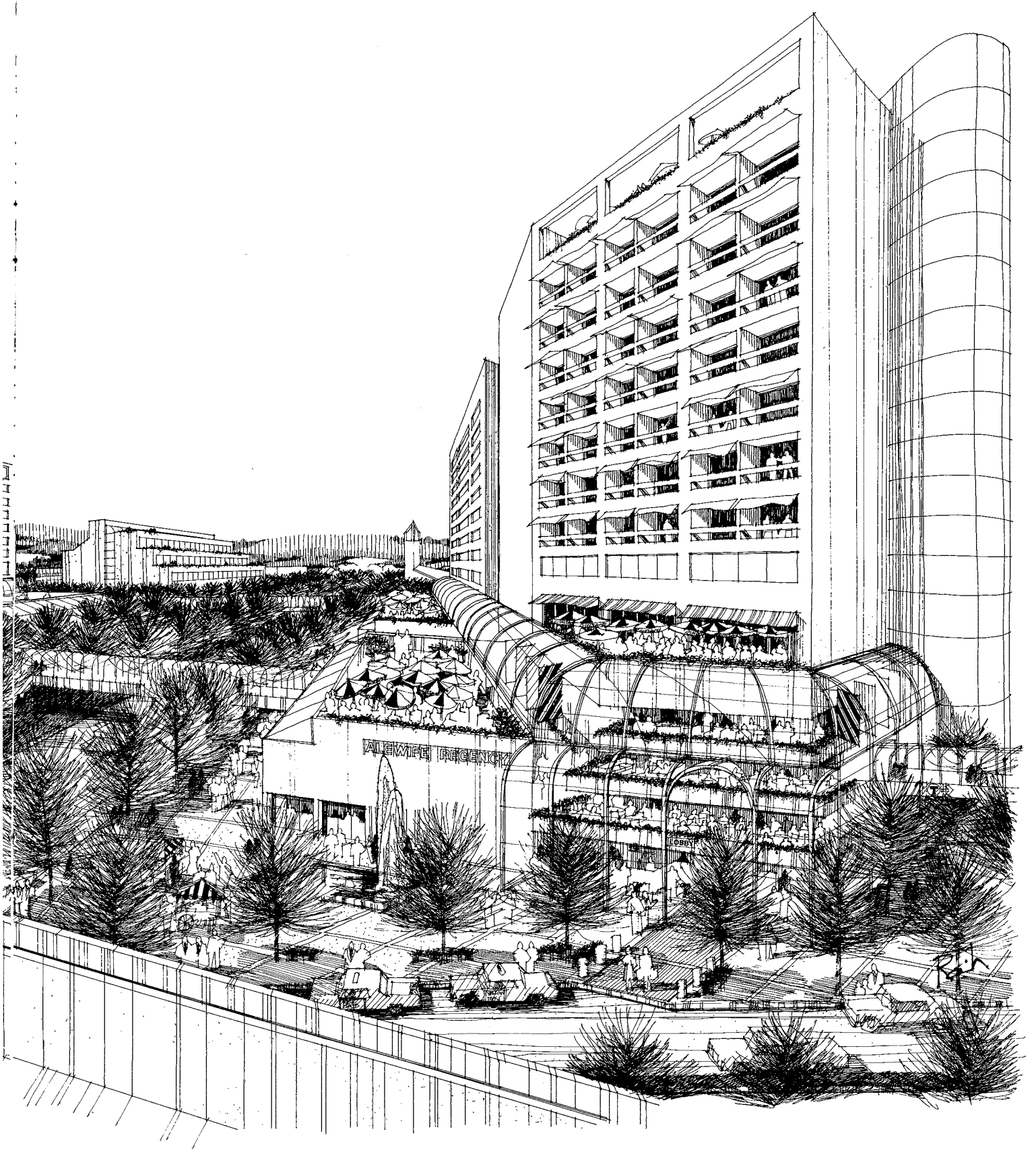
Development Policies are goal statements which attempt to do several important things: 1) set limits on the size and magnitude of new development; 2) establish the environmental quality of the overall area; and 3) phase the growth of new building activity to avoid potential problems. The Development Policies seek to coordinate public and private actions at Alewife to effect immediate and qualitative improvements in the physical and social environment of the area.

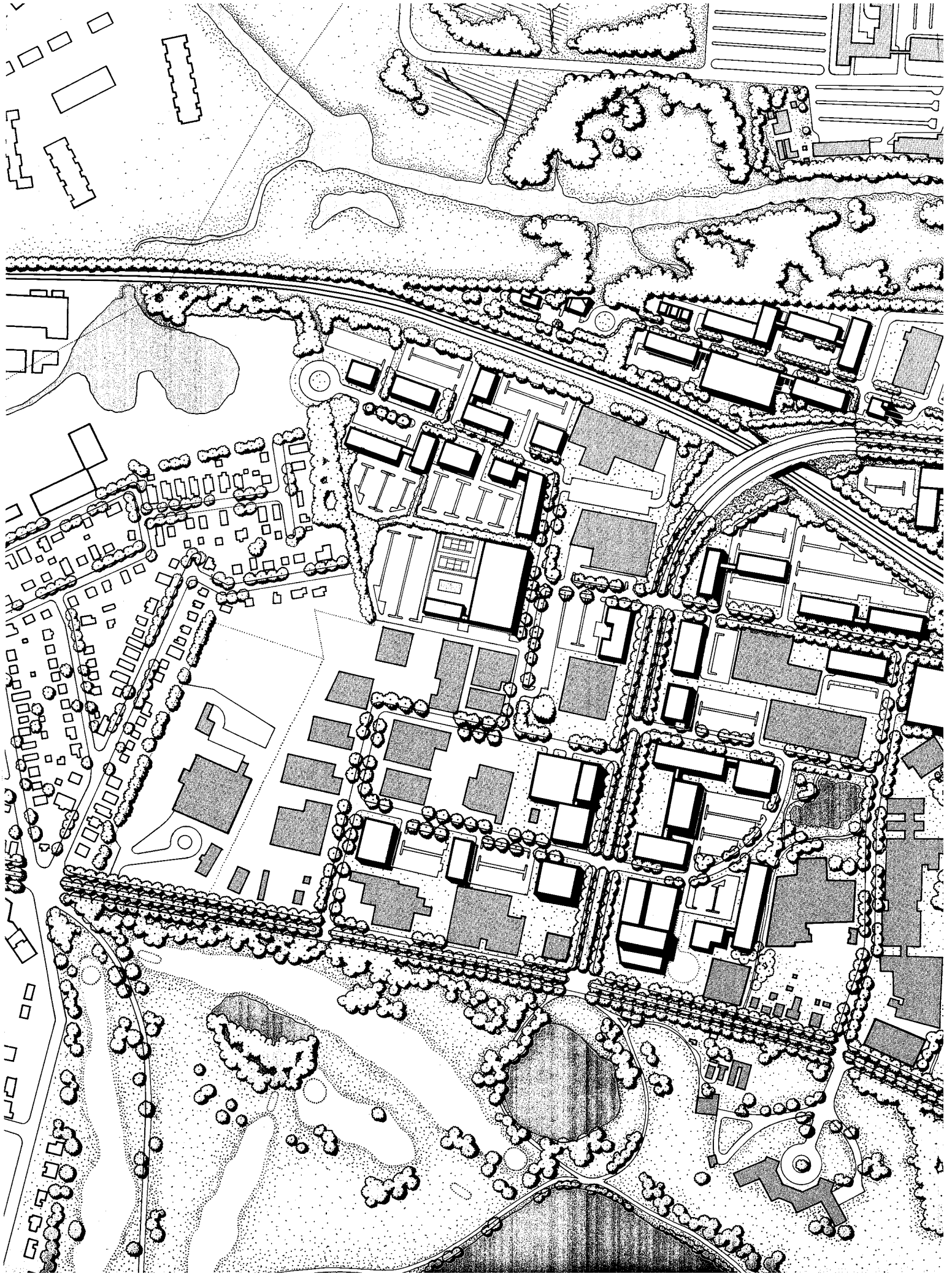
Since Alewife is so large and its nature varies so widely from area to area, it was divided into seven development districts so that Development Policies could be tailored to local conditions and potential for change (see Figure 65). Development Policies in the form of design principles have been prepared for each district (see Appendix One) but only the first four districts have major design components needing detailed discussion. Although future development may in fact depart from the details suggested here, the spirit of the District Development Policies should be respected during implementation.

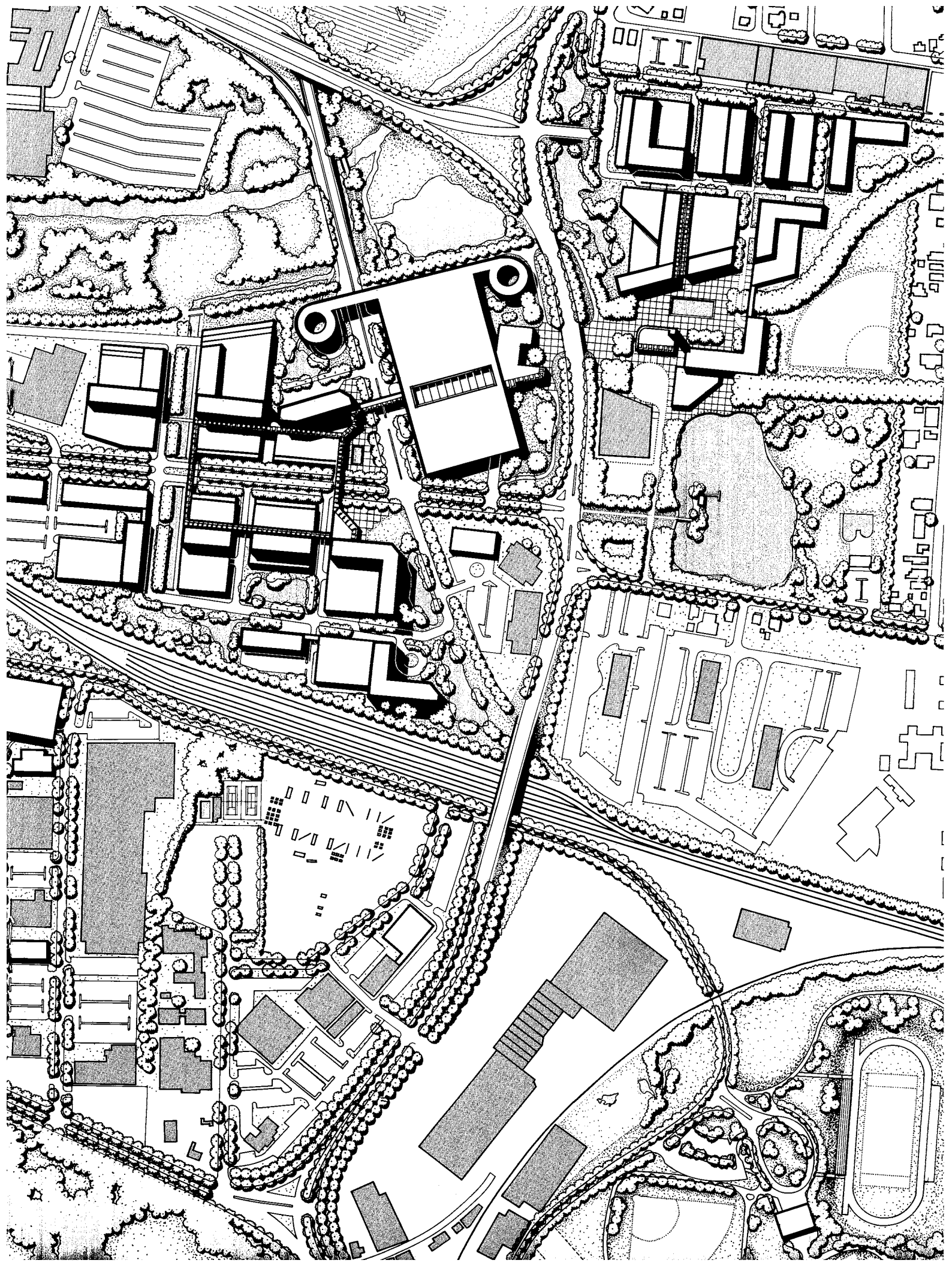


62. View Down Alewife Boulevard
Looking toward Belmont from the MBTA parking garage showing possible office and commercial buildings in the Alewife Station District. Alewife Station will be a unique activity center. New buildings will feature retail and service activities on lower floors and office, housing, or hotel above. Shopping arcades and pedestrian bridges could connect buildings and the new station. A major hotel is shown next to the MBTA facility with a variety of shops, restaurants, and terraces.

63. (Overleaf) The Alewife Urban Design Plan


ALEWIFE REGENCY
LOBBY





District 1. Alewife Station

Alewife Station is intended to be the Community Center of Alewife, serving the surrounding area as well as adjacent neighborhoods. The district will have a mixture of office and commercial uses, with some residential and hotel facilities.

Alewife station should function as an economic as well as a visual unit. The mix of commercial, hotel, office, and residential uses should be regulated so the district maintains an active and economically viable business climate.

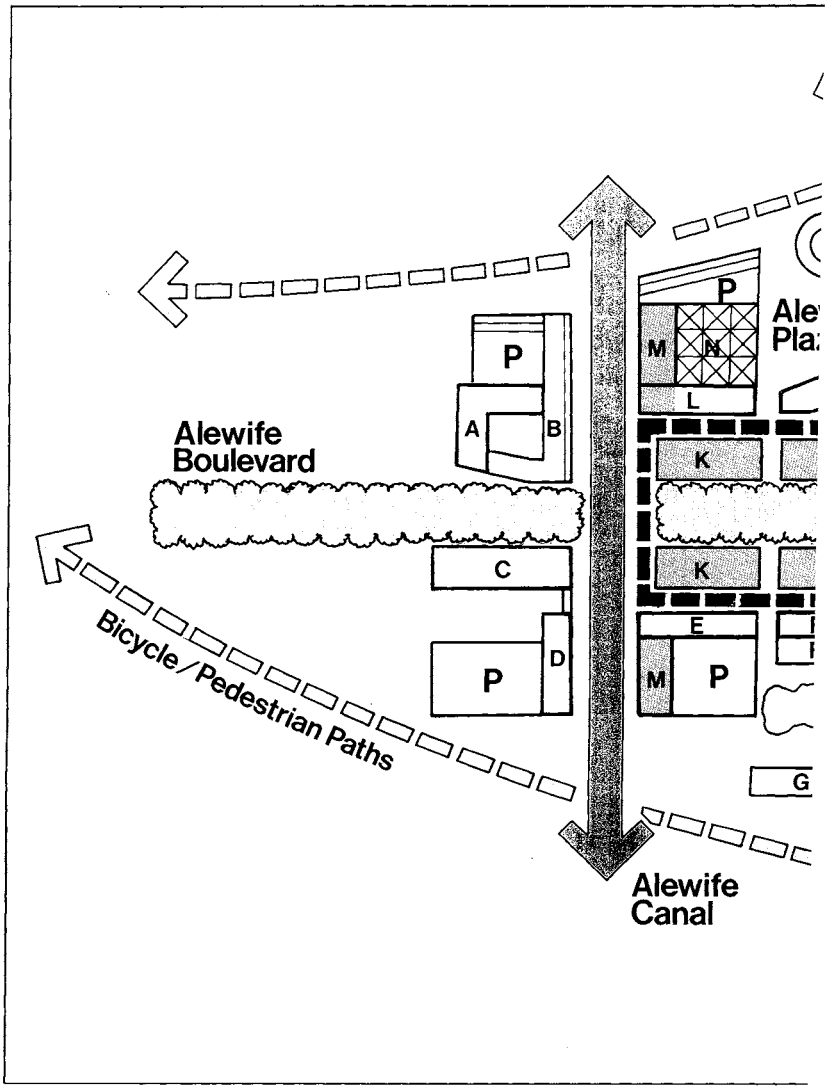
Suggested special features of the Alewife station area include:

Alewife Canal. Alewife Brook today runs from Yates Pond through the Industrial area in a brick culvert and on to Fresh Pond. Development policies for Alewife station propose to uncover the Brook, and create an attractive public amenity. The present alignment of Alewife Brook should be shifted to the west of its present location to form a secondary focus for commercial, hotel, and residential development.

Pedestrian Arcade. A system of upper-level pedestrian walkways and shopping arcades are encouraged to connect commercial, hotel, office, parking, and transit activities in an easily accessible and barrier-free unit. The pedestrian system would bridge across Ramp Street from the MBTA Station to new development, and provide a bridge in two or more locations across Alewife Boulevard. Such an arcade not only creates a comfortable and convenient sheltered pedestrian system but it also provides a framework with which to structure incremental growth in the Alewife Station area.

Alewife Plaza. Directly across Ramp Street from the MBTA station and garage should be found the major focus for new Alewife development — Alewife Plaza. The Plaza would serve as Alewife's major public space, featuring an urban fountain, a pedestrian drop-off area, and access to the upper level pedestrian arcade system.

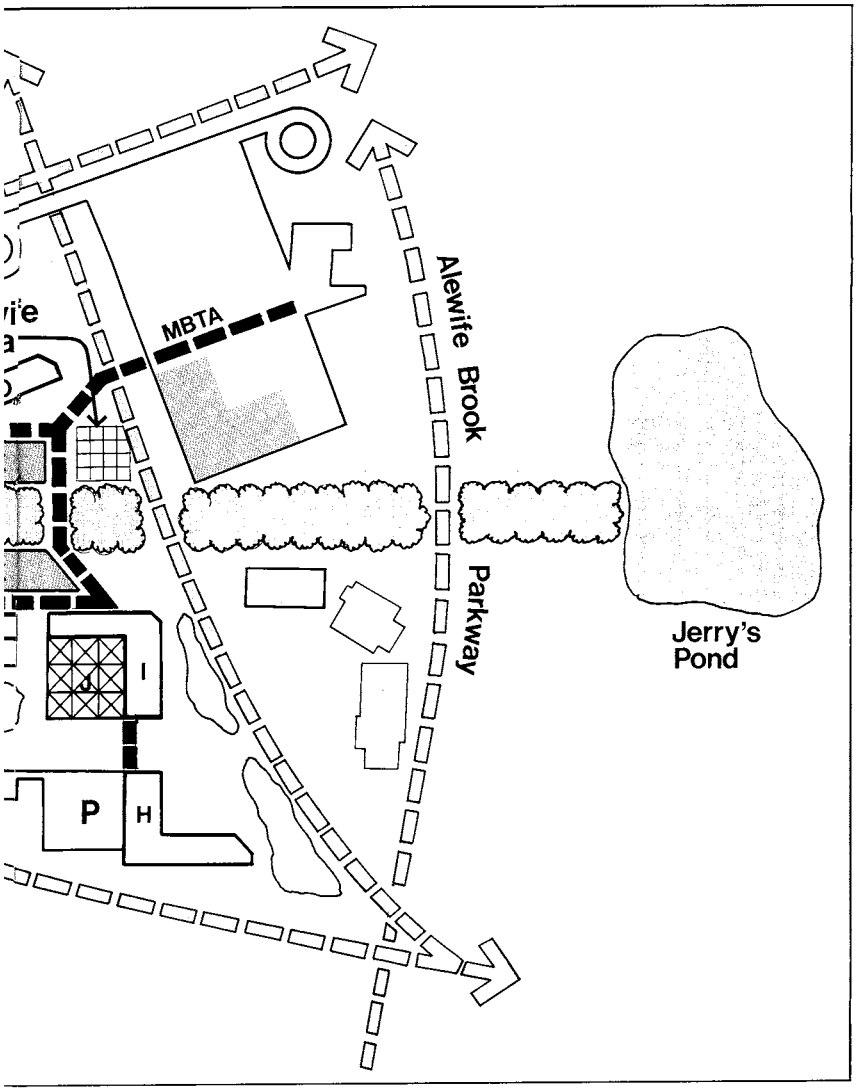
Flood Retention Ponds. Most of the Alewife Station area is located within the 100-year flood plain. New development must not increase the flooding potential of the Alewife Brook watershed. Creating flood retention ponds could help mitigate the impact of new development by improving both the visual and hydrological qualities of the area. Flood retention ponds could also serve as focus for new development.

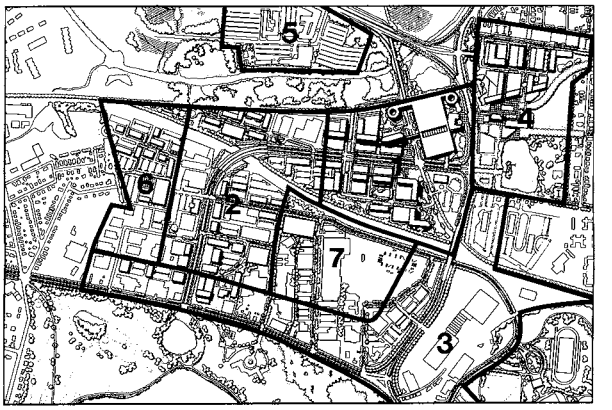


64. Alewife Station District Diagram

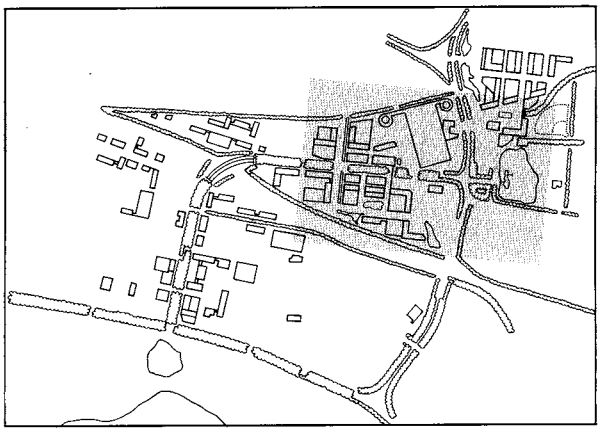
A. *14 Story condominium or elderly housing with interior courtyard*
B. *8 Story condominium housing with service commercial along Alewife canal*
C. *14 Story office building*
D. *8 Story office building overlooking canal*
E. *14 Story office buildings*
F. *14 Story office building stepping down to 6 stories near the retention pond*
G. *8 Story office building stepping down by a pedestrian bridge to structured parking*
H. *14 Story office or hotel (approximately 250 rooms).*
I. *14 Story office or hotel complex*
J. *Conference facility with 4 stories of structured parking beneath*
K. *5 Story mixed use office/commercial buildings with interior shopping galleria connected with upper level pedestrian walkways.*
L. *14 Story office or residential building*
M. *Mixed use office/commercial buildings with commercial uses on the ground floor along Alewife canal.*
N. *Conference facility with 4 stories of structured parking below.*

Green Dotted Arrows. Bicycle Pedestrian Paths
Gray Shaded Areas. Preferred Commercial Areas
P. Structured Parking
■■■ Pedestrian Arcade
Flood Retention Ponds





65. Alewife Development Districts
1. *Alewife Station;* **2.** *Alewife Boulevard;* **3.** *Parkway;* **4.** *W.R. Grace;* **5.** *Acorn Office Park;* **6.** *West Alewife Industrial Park;* **7.** *East Alewife Industrial Park.*



66. Location Key: Alewife Station District

67. River Walk, San Antonio, Texas
A park-like setting in the midst of a commercial area, this is an example of what Alewife Canal might look like (see Figure 50).

68. Rendering of an Alewife Shopping Arcade
Office buildings along Alewife Boulevard should contain a variety of lower floor retail and commercial facilities to serve employees and visitors.

District 2. Alewife Boulevard

Alewife Boulevard is the newly created roadway connecting Rindge Avenue extension across the Fitchburg mainline to Smith Place. The Boulevard is intended to serve as the major internal access road for new office-research and development activities at Alewife. The suggested design of Alewife Boulevard is intended to create a special and unique image: a four-lane roadway with a landscaped median, street trees, wide sidewalks for pedestrians and bicycles, ornamental street lighting, and street furniture for bus stops and sitting areas. Its visual and environmental qualities should create a quality image for the Boulevard and attract prestigious land uses.

Special development features of the Alewife Boulevard district include:

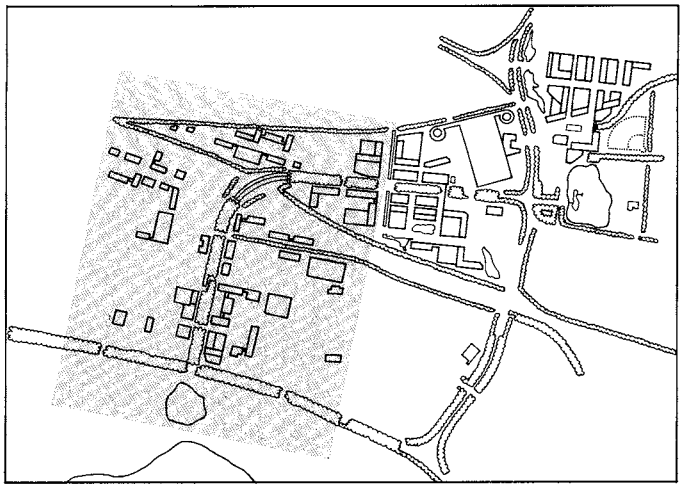
Alewife Fire Station. In the triangle, just as Alewife Boulevard curves south to cross the tracks, a new fire station is proposed.

A fire station would provide badly needed protection for expanding Alewife business as well as the entire western portion of Cambridge.

The station would be located on the small triangular site, otherwise unsuitable for development. The area around the station would be developed as a park. Since the fire station is located along the main visual axis of Alewife Boulevard, it should contain a strong vertical element, perhaps a spire or a tower. This would pleasantly terminate the long view down the Boulevard from Alewife Station and give additional visual orientation to the district.

Alewife Nature Center. At the tip of the Industrial Triangle, a nature museum is proposed. The museum would serve as the main visitor center for Alewife Reservation.

The museum should have permanent features like a display of the geological or landscape history of the Alewife area. Along with exhibition spaces, the museum could contain facilities for seminars and community meetings and perhaps special observation facilities to view the Reservation. Museum staff could also conduct tours of the Alewife Reservation to promote better awareness of the importance of Massachusetts wetlands.

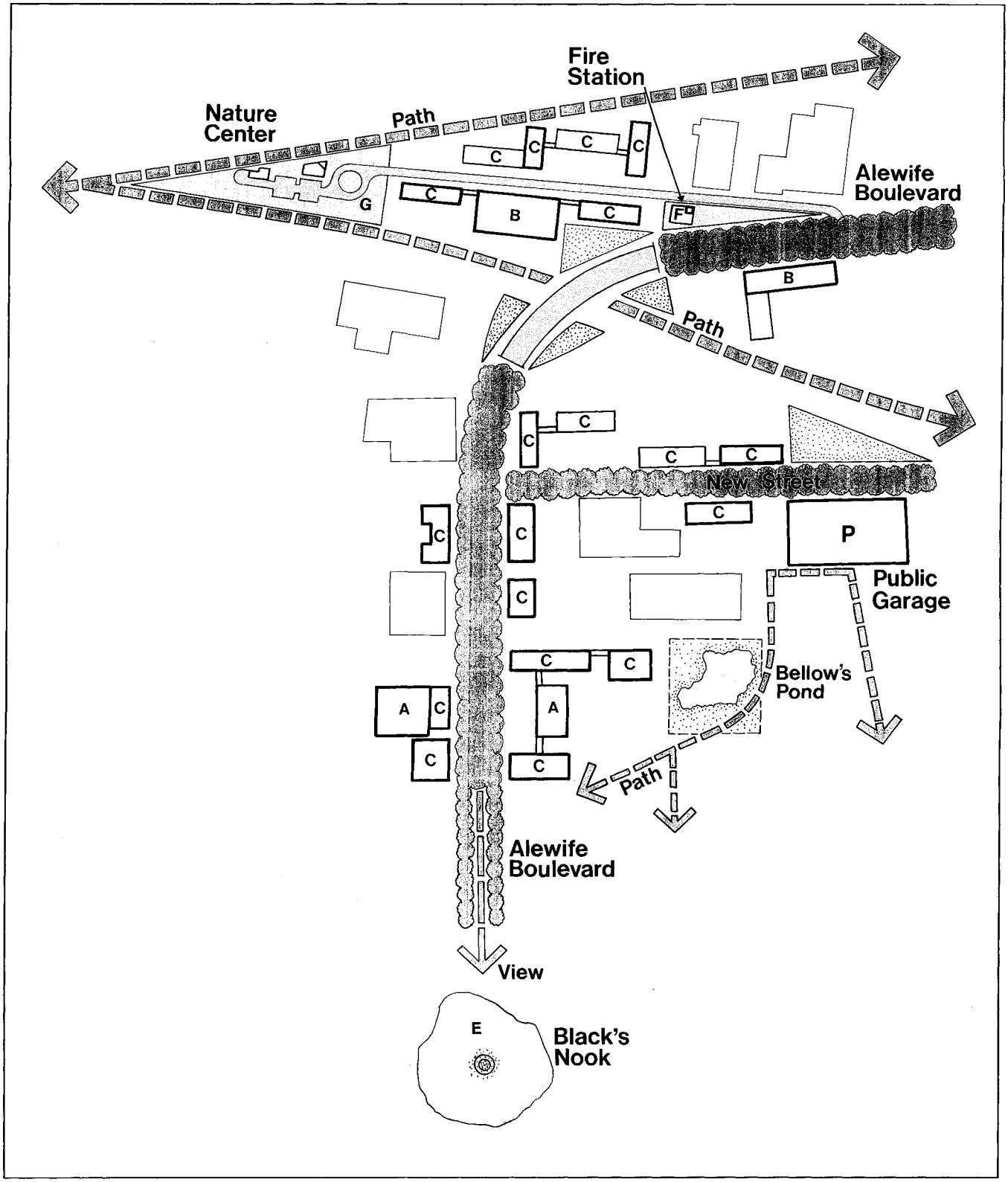


69. Location Key: Alewife Boulevard District

Bellow's Pond. Where Moulton Street meets the railroad spur, there stands today several hundred square feet of debris-filled water. Because of the area's low water table, what appears to be a drainage ditch is in reality a permanent Alewife wetland.

After roadway work at Moulton Street and Wilson Road is completed, the opportunity will exist to convert the Bellow's Pond wetlands into a more valuable water amenity. This would not only improve the flood retention capacity of the floodplain but also create a new visual amenity for nearby development.

Parking Garage. In the same area as the new pond, a parking garage of 400-600 cars is suggested. Improved roadways and new development will create a critical need for parking. If large surface parking lots are to be avoided, structural parking garages must be promoted. A joint-venture municipal/private parking garage in this general area is one way to meet the increased demand for additional parking.



70. Alewife Boulevard District Diagram

A. *8 Story corporate office building.*
B. *8 Story office/research building.*
C. *5 Story office/research building.*
D. *Newly-created water retention area, Bellows Pond.*
E. *Black's Nook Pond with new fountain.*
F. *New fire station and park*
G. *Nature center with access to Alewife Reservation.*

P. *Structured Parking*
Bicycle/Pedestrian Paths: dotted green arrows

District 3. Parkway District

Alewife Brook Parkway and Concord Avenue are the major arteries servicing Alewife today. They are also the major entries into Cambridge from the northwest Boston region. For this reason, they are of prominent symbolic as well as strategic importance.

Alewife Boulevard and Concord Avenue need to be upgraded with street tree plantings, new curbs and gutters, expanded sidewalks and attractive street lighting. Curb cuts should be limited; primary access to businesses along the roads should, if possible, be provided from internal area roadways. The rights-of-way should be expanded to accommodate additional landscaping. New buildings should be required to be set back from the right-of-way, with generously landscaped front yards. Parking and service areas should occur behind buildings screened from view. Strip commercial and highway-service activities should be closely controlled through a stringent design review process.

The environmental image of the Parkway district can and should be improved, but it will take time. If the general principles can be established now, new development can begin the slow process of bringing about that change.

Special development features in the Parkway District include:

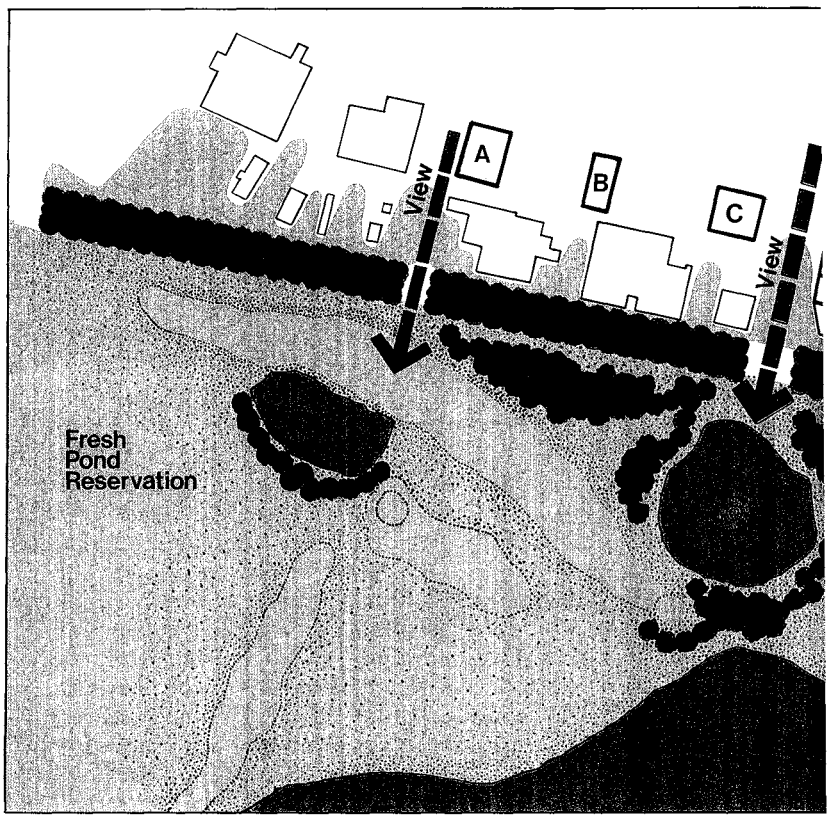
Black's Nook. In certain areas along Concord Avenue, views should be opened into the Fresh Pond Reservation by selectively pruning (not cutting down) existing trees and shrubs. One area selected for such treatment is the Black's Nook area. The visual axis established by Alewife Boulevard can terminate at Black's Nook, creating a view into Fresh Pond.

MDC Bridge. The MDC is currently designing a replacement bridge for the current parkway bridge over the Fitchburg Mainline. The Development Policies suggest that the new bridge be designed in a style that will be visually compatible with the landscaped parkway image that this plan is promoting.

Urban Gateways. Alewife has two major entries to the City of Cambridge: one at Blanchard Road and Concord Avenue; the other at the junction of Route 2 and Alewife Brook Parkway. These create an opportunity to project a positive image of Cambridge and to announce special events or happenings in the city to area travelers.

Gateways can be created by special street signs, special landscape treatment, or both. Gateway locations must be carefully selected and individually designed.

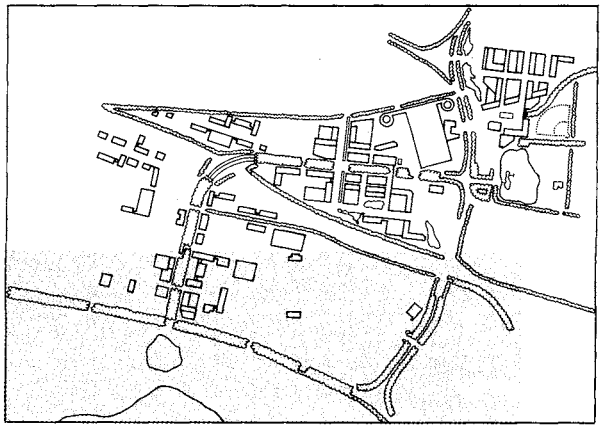
Special consideration must be given to the scale and character of the gateway site, speed and viewing angle of the observer, and safety and maintenance features of the final design.



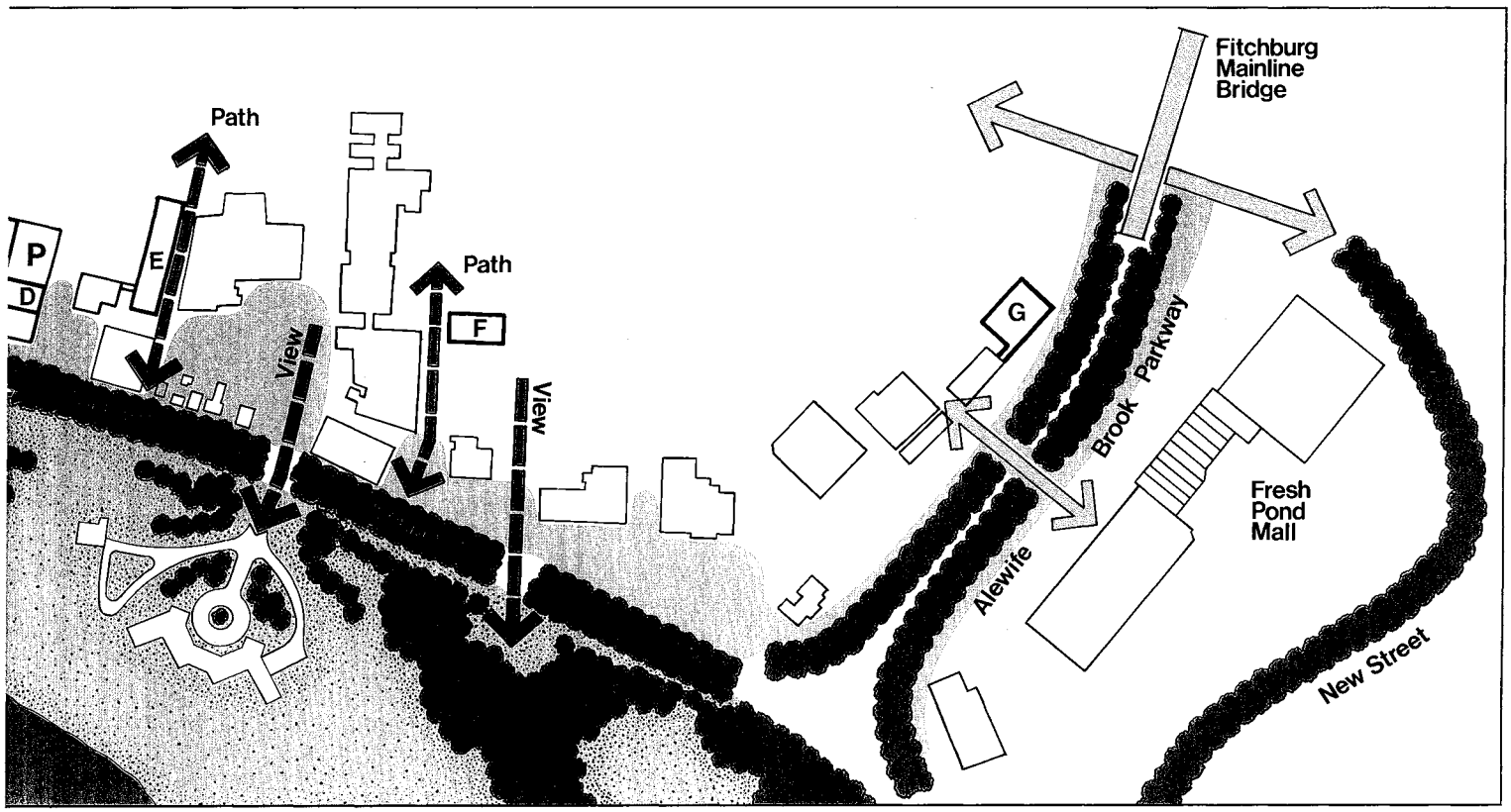
71. Parkway District Diagram

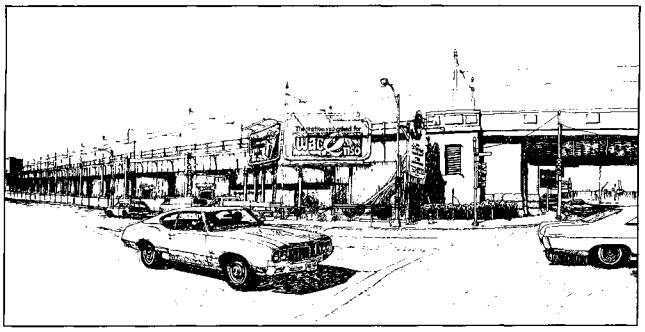
A. *6 Story office/research building.*
B. *6 Story office/research building.*
C. *8 Story office building.*
D. *8 Story office building stepping down to 5 stories near Concord Avenue.*
E. *8 Story office building.*
F. *5 Story technical office.*
G. *5 Story expansion of office/commercial activity.*

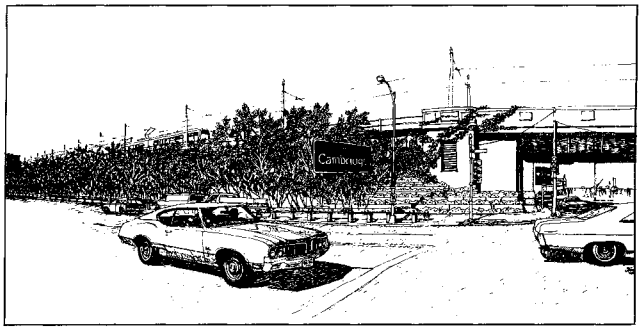
Green Dotted Arrows. *Bicycle/Pedestrian Paths*
Gray Arrows. *New Access Roads*
P. *Structured Parking*



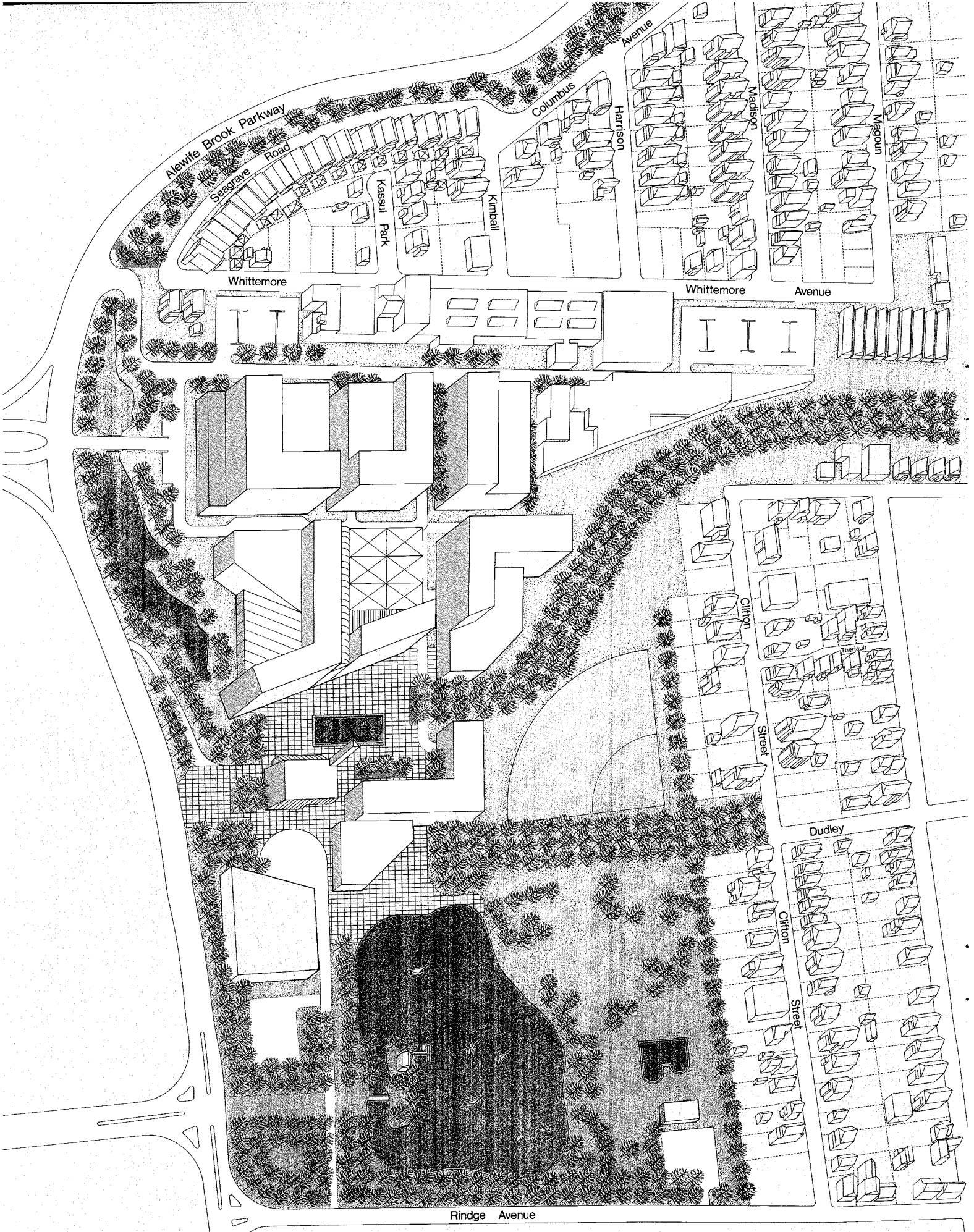
72. Location Key: Parkway District



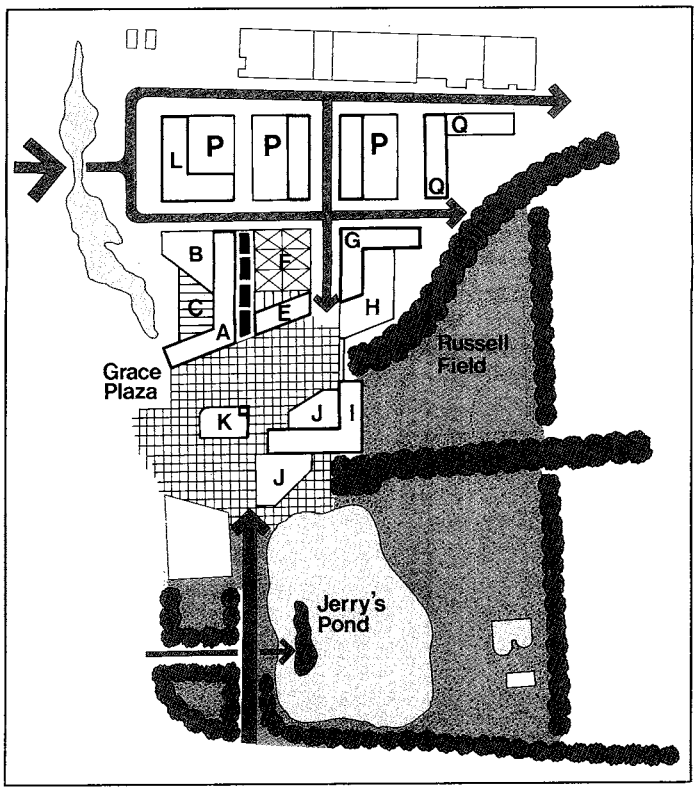




73-74. Urban Gateway for O'Brien Highway
Existing condition is contrasted with proposed signing and landscaping treatment for one entrance to Cambridge.

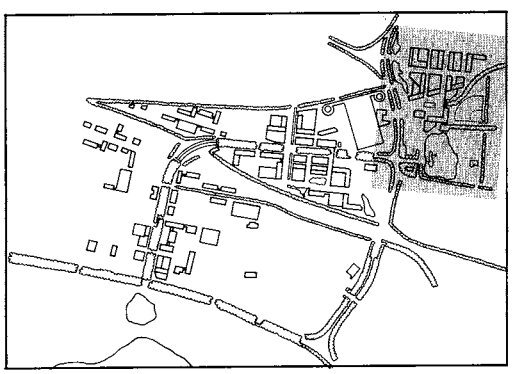


77. Rendering of Possible W. R. Grace Development



75. W.R. Grace District Diagram

A. *8 Story hotel with related commercial activity on ground floor at Grace Plaza.*
B. *5 Story hotel and banquet facilities with swimming pool and recreation facilities on roof deck.*
C. *5 Story atrium space which serves as the main lobby of the hotel with restaurants and related commercial on the main floor.*
D. *5 Story shopping galleria with 2 levels of commercial with hotel and conference facilities above.*
E. *8 Story general office building with related service commercial activity on the ground floor at Grace Plaza.*
F. *5 Story conference facility associated with the hotel office complex. Ground floor retail along the galleria. 4 levels of parking.*
G. *8 Story office building or condominium housing with views oriented toward Russell Field.*
H. *4 Story office building or condominium housing with some conference or community activity facilities. 2 levels of parking.*
I. *5 Story condominium housing or general office space with views oriented toward Russell Field and Jerry's Pond. 1 level of parking.*
J. *3 Story commercial building with cafes and restaurants which extend their activities on to Grace Plaza during the summer months.*
K. *1 Story MBTA station entry with vertical clock tower and newsstand.*
L. *8 Story general office building with associated level parking garage.*
M. *8 Story general office building with associated 7 level parking garage.*
N. *8 Story general office building with associated 7 level parking garage. Top level of the garage is used for recreational activities.*
O. *8 Story general office building or condominium housing.*
Q. *5 Story general office or condominium housing.*



76. Location Key: W.R. Grace District

District 4. W.R. Grace

Although this district has been examined in the North Cambridge Urban Design Study, it is included here because of its direct relationship to Alewife and the MBTA Transit station.

The W. R. Grace Development district comprises approximately 30 acres of private land ready for development and approximately 18 acres of existing parkland. Once a direct access to the district is provided from Route 2 and after the MBTA Transit Station is built, the area is expected to develop rapidly. The recent rezoning allows for a mixed use development of commercial, hotel, conference, housing, and office uses.

Since this development district acts as a transition zone between the North Cambridge neighborhood and Alewife, the highest, densest, and most active uses should be located around the east side entry to the transit station. New development should be scaled down in height and intensity of use, as it approaches nearby residential and open space districts.

Special development features in the W.R. Grace District include:

Grace Plaza. An urban plaza should be created around the east entry to the transit station. High intensity land uses such as commercial, hotel, and office activity should focus on the plaza to create an active area near the transit station.

The east entry building should create a visual focus in the plaza through the use of a vertical element such as a clock tower or spire. It might contain a newsstand or other associated vending activity. The plaza could also feature a large urban fountain, decorative paving patterns, and special landscaping, as well as street furniture, ornamental lighting, and pushcart vendors.

Jerry's Pond. Jerry's Pond is a man-made waterbody which was once a clay pit for a brick industry. The pond should be improved to be an attractive landscape feature for new development. It could become a public amenity to complement the nearby Russell Field recreation area. The pond needs to be expanded to replace flood retention capacity displaced by new development. Through proper conservation management, Jerry's Pond could become an important community resource.

Cambridge Gateway. The main entry to the Grace Development District will be from the intersection at Route 2 and Alewife Brook Parkway.. With the entry directly at the terminus of Route 2, the Grace District serves as another major entry to Cambridge. New development should take this opportunity to establish a positive image for the City by setting buildings back from the intersection to establish a vista into the Development District and by adding special landscaping to enhance the visual and environmental character of new development.

D. Growth Management

With its tremendous development potential, the Alewife area is a valuable city resource which will play a significant role in shaping the economic health of the city during the last part of this century. But Alewife also contains sensitive environmental areas vital to the city and to the region. The challenge for Cambridge is to find a way to guide change in this area which will capitalize on its economic potential while protecting and enhancing its environmental amenities.

With the goals of the Urban Design Plan in mind, current broad-based Alewife zoning was examined on an area by area basis, and revisions to support the Plan were developed. The suggested new Alewife zoning is more attuned to locational differences and natural features of the area. The new districts would change several important aspects of the existing land use controls.

For example, permitted densities and types of new land use would be more limited than today; and height limitations, which do not exist now, would be instituted. Open space areas would be placed in special categories to prevent development, and large scale development projects would be encouraged to add to the open space of the area. The new zoning would promote denser development in those areas farther away from existing residential neighborhoods. One final note: new Alewife Zoning is not intended to drive existing industrial businesses out of the area. Such industries would not only be allowed to continue operating indefinitely at Alewife, but, in fact, could even expand somewhat. Eventually, however, if these industries leave the area, the new zoning would insure that replacement land uses would add to the upgraded business center that is the aim of the Alewife Urban Design Plan.

Suggested Alewife Rezoning

Proposed Alewife rezoning would establish nine zoning districts in the area as well as two overlay districts to provide additional controls in certain sensitive places.

1. Acorn Office Park

Three factors need to be considered in thinking about the future of the area. First, it serves as an entrance to Alewife and to the entire City of Cambridge and has great symbolic importance. Second, it is virtually surrounded by wetlands. Third, A.D. Little's renowned research complex is the area's principal occupant. Continuation and expansion of high quality research and development activity should logically be encouraged here; and further strip commercial development, similar to the smaller scale uses in the area, should be discouraged. A medium density office district is suggested.

District Designation: Office 2 (revised regulations); for complete information, see City of Cambridge Zoning Ordinance

Allowed Uses: general and technical offices, laboratories and other research facilities

Conditional Permitted Uses: residential up to 72 dwelling units per acre

Maximum Floor Area Ratio: 2.0

Height Limit: 85 feet

2. Alewife Reservation

This large marsh land and floodplain area plays a variety of critical environmental roles: wildlife habitat, floodplain storage area, nature laboratory, passive recreation area, and visual relief in the urban landscape. While the reservation is under the control of the MDC, local zoning should reflect the reality of the area rather than continuing its present industrial classification.

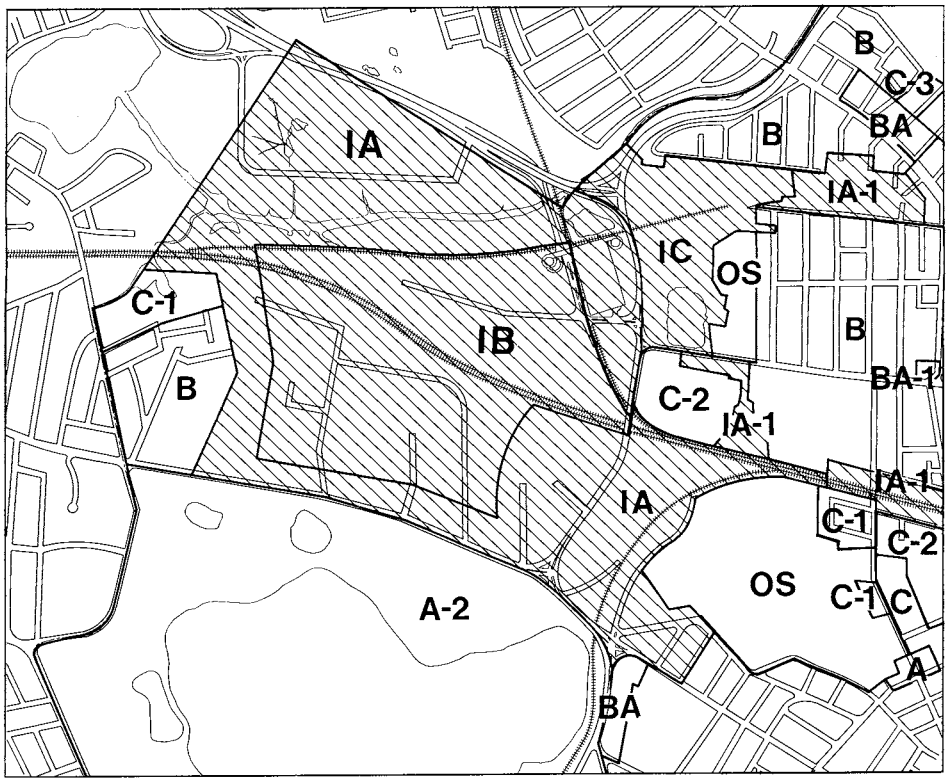
District Designation: Open Space — OS

Allowed Uses: conservation, park, or recreation-related

Conditionally permitted uses: statutorily exempt religious, educational, and governmental uses permitted only after notice to Planning Board and public hearing

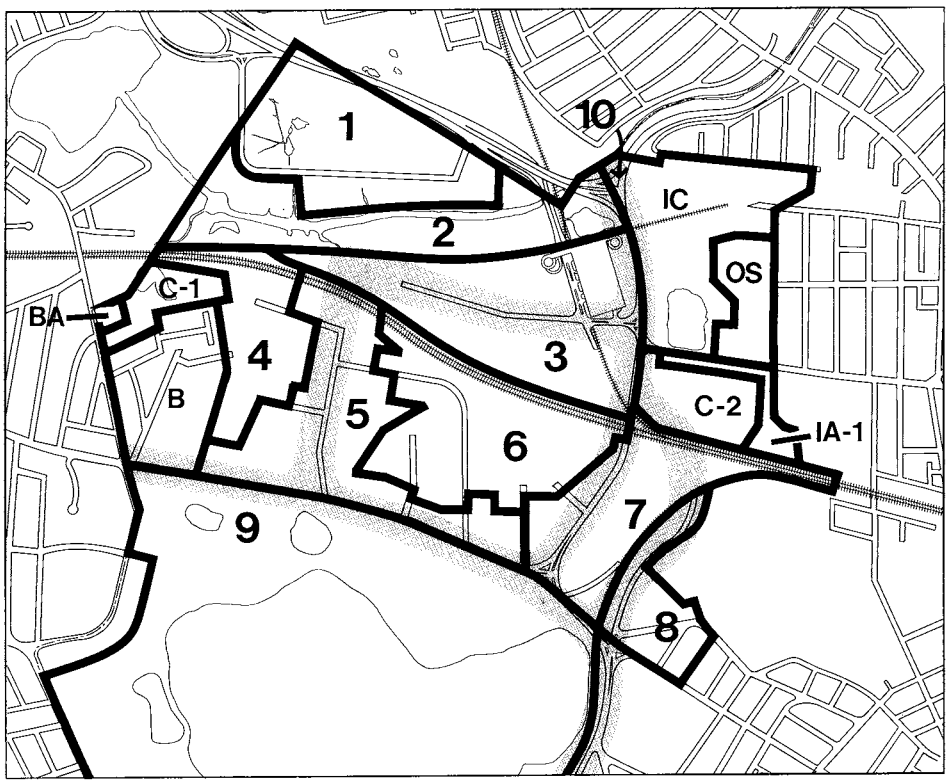
Maximum Floor Area Ratio: 0.25

Height Limit: 35 feet



78. Existing Zoning

IA. *light industry*
IB. *heavy industry*
IC. *office, research, manufacturing with overlay district*
IA-1. *light industry with restrictions*
BA. *business*
BA-1. *business with restrictions*
A-1. *single-family residence*
B. *two-family residence*
C-1. *multifamily residence*
C-2. *" "*
C-3. *" "*
O-S. *open space*



79. Proposed Alewife Zoning

1. *Office 2*
2. *Open Space*
3. *Office 2 with Special District Overlay Zone*
4. *Industry A*
5. *Office 2*
6. *Industry A*
7. *Business C*
8. *Industry A-1*
9. *Open Space*
10. *Shaded area represents Parkway Overlay District.*

3. Alewife Station/Alewife Boulevard Area

Several conditions, existing or planned, suggest that the Triangle may experience strong pressures for large scale development: high visibility, large parcel size under limited ownership, primarily "soft" land uses, possible direct access to Route 2, and a new transit station with direct connections to Cambridge and Boston. While development pressures may eventually be greater here than elsewhere in Alewife, they will probably be late in coming due to current uncertainties about the status of planned transportation improvements. If there is any location in Alewife where higher density, mixed-use development should occur, it is near the new transit station. Therefore, it is important that land use regulation decision-making today not preclude such development from occurring later.

District Designation: Office-2 (revised regulations)

Allowed Uses: general and technical offices, laboratories and other research facilities

Conditionally Permitted Uses: residential up to 72 dwelling units per acre

Maximum Floor Area Ratio: 2.0

Height Limit: 85 feet

Special Provisions: a Special District Overlay Zone is being considered. This would permit, under certain conditions, higher density mixed office, commercial, hotel, and residential uses plus maximum F.A.R. of 3.0 and maximum height of 200 feet. Larger scale development would be encouraged closer to the transit station.

4. West Alewife Industrial Park

Two things are important to realize in discussing future development in the western end of the Quadrangle, the area around the former Adley Trucking terminal. It is more isolated than other Alewife industrial areas, both in terms of access and visibility. Also, it abuts the Cambridge Highlands residential neighborhood. Because of these conditions, it is suggested that the area be rezoned to allow a somewhat broader range of uses than is permitted in the office districts suggested elsewhere; but tighter bulk and height regulations should be established.

District Designation: Industry A (revised regulations)

Allowed Uses: general and technical offices, laboratories and other research facilities, light manufacturing

Conditionally Permitted Uses: heavy manufacturing, warehousing

Maximum Floor Area Ratio: 1.5

Height Limit: 65 feet; 35 feet within 100 feet of a residence or residential district

5. Alewife Boulevard/West Concord Avenue Area

The plans for "Alewife Boulevard" should create a prestige image for the central part of the quadrangle and create a connection over the railroad tracks to the triangle. This should enhance its development potential. Similarly, eventual improvement of Concord Avenue will improve the area's image and create development value. Under these circumstances, it would appear that strip commercial land uses which are allowed today should be avoided. The medium density office district would seem to be appropriate.

District Designation: Office-2 (revised regulations)

Allowed Uses: general and technical offices, laboratories and other research facilities

Conditionally Permitted Uses: residential up to 72 dwelling-units per acre

Maximum Floor Area Ratio: 2.0

Height Limit: 85 feet

Special Provisions: in the case of Concord Avenue, see discussion of Parkway Overlay District below

6. East Alewife Industrial Park

It is important to encourage industrial uses, as well as commercial and office uses, to locate and expand at Alewife. A combination of office and industrial development is therefore planned for the interior part of the Quadrangle from Wheeler Street to Moulton Street. As in the case of the Western Quadrangle, a wider range of land uses would be allowed, but height and bulk requirements would be more restrictive than in office districts.

District Designation: Industry A (revised regulations)

Allowed Uses: general and technical offices; laboratories, and other research facilities; light manufacturing

Conditionally Permitted Uses: heavy manufacturing; warehousing

Maximum Floor Area Ratio: 1.5

Height Limit: 65 feet; 35 feet within 100 feet of a residence or a residential district

7. Alewife Brook Parkway Commercial Area

The Parkway, from the Fitchburg Mainline railroad tracks to the Concord Avenue Rotary, is now almost exclusively commercial in usage. Although the Parkway experiences traffic problems and congestion, the future of this area would clearly appear to be one of commercial use, although the extent and magnitude of change should be limited.

District Designation: Business C

Allowed Uses: retail, service, commercial, offices, and residential up to 36 dwelling units per acre (residential C-1 requirements)

Maximum Floor Area Ratio: 2.0

Height Limit: 55 feet

Special Provisions: off-street parking requirements

8. New Street/Bay State Road Area

Tighter regulation of development in the existing industrial district behind Fresh Pond Shopping Center appears to be warranted because of its proximity to the new City Park and the Concord Avenue residential areas. The light industry and office district used elsewhere next to low density residential and open spaces areas would seem to be appropriate.

District Designation: Industry A-1

Allowed Uses: light industry, offices, small scale convenience retail

Conditionally Permitted Uses: limited heavy industry, warehouse, limited residential

Maximum Floor Area Ratio: 1.0

Height Limit: 45 feet

9. Fresh Pond

Like the MDC's Alewife Reservation, the zoning designation of the City's Fresh Pond Reservation is inconsistent with its use. Rezoning the reservation to an open space district would reflect the realities of the area. It would also provide public review of any future development which is proposed by government agencies. For a description of the Open Space district, see # 2 above.

10. Parkway Overlay District

In addition to the new base zoning districts for Alewife, a second layer of regulations is proposed for the areas along the major roadways. These regulations, collectively designated as a Parkway Overlay District, would be intended to achieve certain objectives of the urban design plan, including upgrading the physical image of the area and protecting public space. If adopted, the Parkway Overlay District would extend up to 200 feet in depth along Alewife Brook Parkway, Concord Avenue, New Street, Alewife Boulevard (Smith Place), and Fresh Pond Parkway. Among the potential mandatory regulations in the district would be limitations on certain commercial uses, greater front yard setbacks, special site design and landscaping requirements, and sign controls. Additional building height, up to 85 feet, might be permitted for buildings which are stepped back from the roadway. Development subject to planned unit development review would be exempt from these regulations.

Conclusion: A Growth Management Program

Transformation of the Alewife industrial area from its present condition to a high quality, well-functioning employment center will be a gradual process.

There is no evidence that there will be any wholesale land clearance as in an urban renewal project, nor is there likely to be a single massive public improvement project as in the construction of a suburban industrial park or a new town. The new Alewife will emerge as countless public and private decisions are made over a period of years. The Growth Management Program suggested by the Alewife Urban Design Plan will provide a framework for influencing those decisions and guiding change.

80. Jerry's Pond and W.R. Grace Company

81. Underutilized Railroad Yards
In the Alewife Industrial Area.

Safeguarding the Environment

There are many unanswered questions about future development at Alewife, especially about its impacts on sensitive natural environmental areas nearby. The exact extent of impacts is impossible to predict in advance. It is possible to identify problem areas and to take steps to reduce or eliminate potential harmful effects by regulating development properly.

The Urban Design Plan attempts to do this. On the basis of available information, it encourages well designed development in appropriate locations and at appropriate densities. It also eliminates the possibility of inappropriate development in environmentally sensitive areas. Other public regulations, like the wetlands hearing process, will ensure that Alewife development will not add to the longstanding hydrology problems in the area. But more needs to be done as the Plan is implemented.

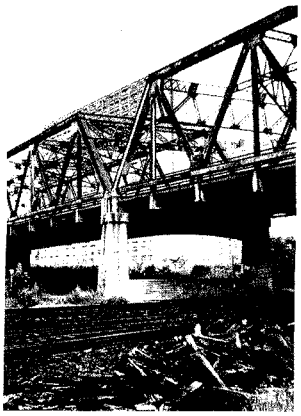
Full development at Alewife will bring with it all the usual effects of building in an urban area plus some that would not exist in other areas of Cambridge. The most visible impact is likely to be increased traffic volume on Alewife streets and roadways. Preliminary traffic studies have already been completed about these effects, and the recommendations of those studies have been figured into the recommended roadway improvement program (for more information see Appendix Two, Table 9). An upcoming Alewife roadway environmental impact study will assess air and water quality impacts caused by additional traffic generated by new development. The Urban Design Plan provides state roadway planners much needed information for making realistic assumptions about long range Alewife development in order to predict potential impacts to the environment and find steps necessary to counteract them.

When the results of the DPW EIS are known near the end of 1979, additional measures by the City of Cambridge to control the adverse impacts of large scale development may have to be added to the Alewife Urban Design Plan. For example, to further limit impacts to delicate natural areas, tighter land use restrictions and greater setback requirements may have to be enacted by City Council. Also, it may become necessary to design special traffic control procedures to keep Alewife traffic out of residential areas. The need for such actions will become clearer when the DPW studies are completed.

In the meantime, the Urban Design Plan attempts to deal with adverse impacts that can reasonably be foreseen through circulation improvements, improving the drainage of the area, controlling development, publishing design guidelines, and creating a public process for review of large scale development proposals — the Special District Overlay Zone.

If the proposed Alewife urban design plan is implemented, the result should be an improved natural and man-made environment at Alewife.

82. Cambridge City Dump
Soon to become the new City Park and city-wide high school athletic facility.



83. Fitchburg Mainline Bridge
Bridge is being designed for replacement.

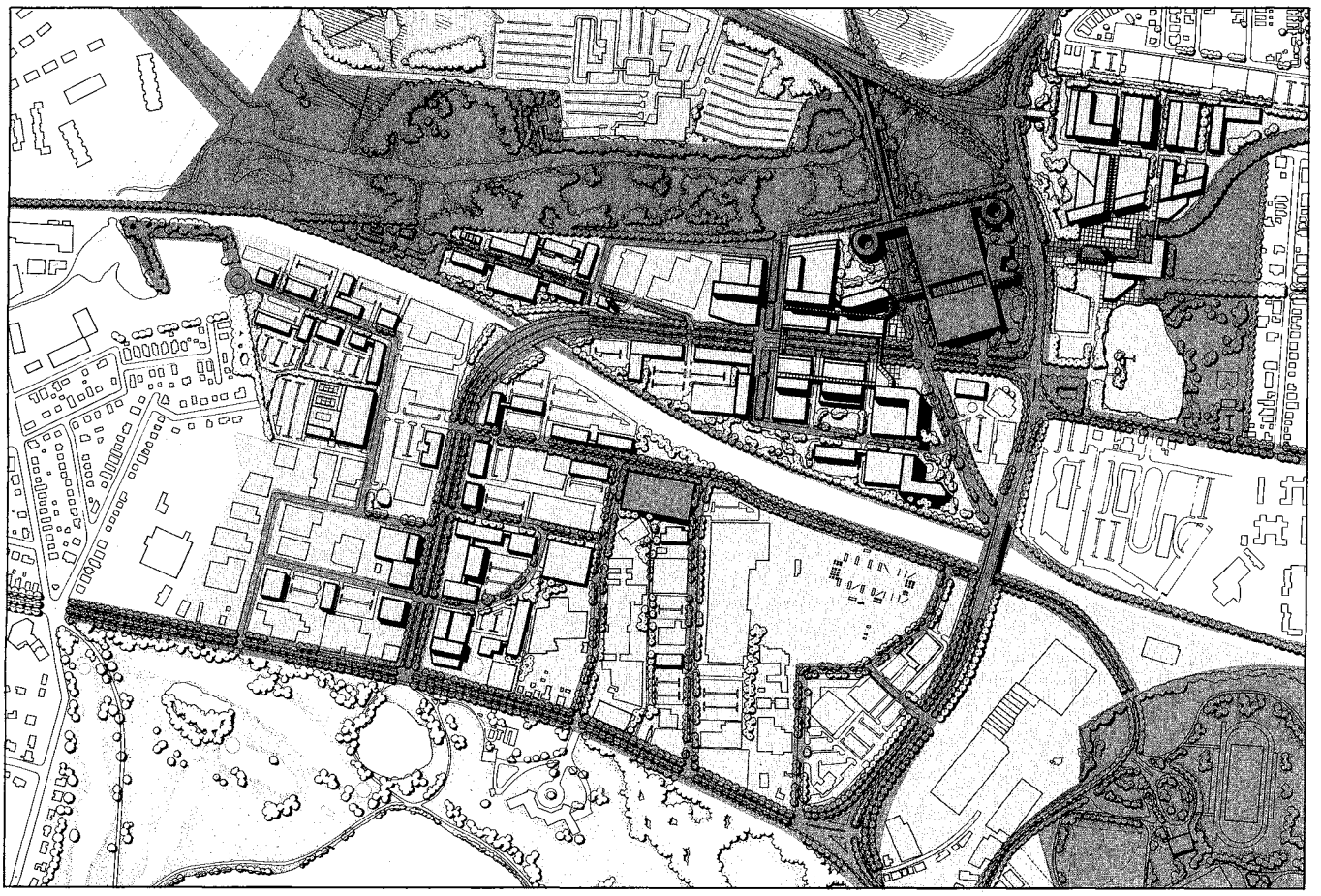
84. Little River at Alewife
With proper management, Alewife wetlands and natural areas could be even more valuable than they are today.

85. Wetlands Next to W.R. Grace
Past development has not always respected the natural environment.

Implementation

Implementation is a long-term, multistage process involving a cooperative effort by the public and private sectors. In order to encourage private investors to build responsibly at Alewife, the City must provide the supporting municipal infrastructure of streets and sidewalks, and water and sewer. On the other hand, businessmen and landowners can help to implement the Alewife Urban Design Plan by donating needed rights-of-way for streets and roadways and helping to defray the cost of infrastructure improvements. A cooperative approach to implementation demands that planning begin as soon as possible to match government and private money for maximum effectiveness.

If local tax dollars alone were relied on to implement the Alewife Urban Design Plan, it would be many years before the plan could be realized. The City is therefore investigating a variety of federal and state funding sources to implement pieces of the plan.



86. Public and Private Implementation
Dark gray areas are Public Sector responsibility. Light gray areas are Private Sector responsibility.

The Public Sector

Several potential sources of funding have been identified and will be pursued in the months ahead:

Economic Development Administration (EDA)-Technical Assistance Grants

The Federal Department of Commerce sponsors a program to help communities solve problems and remove roadblocks in the way of economic growth. One of the basic needs at Alewife is additional planning and engineering studies. A technical studies grant could provide the means to complete these reconnaissance efforts.

EDA-Public Works and Development Facilities Grant

In designated target areas, EDA provides funds to complete the infrastructure necessary to attract new industry and encourage business expansion. Since Cambridge is eligible for funding and since infrastructure improvements are the first order of business, this program would seem tailor-made for Alewife. A grant application is being prepared.

Urban Development Action Grant

The Department of Housing and Urban Development's new program to match private investment and public improvements is another potential Alewife resource. Since the City already has $6.8 million in UDAG funds for East Cambridge, utilizing this program for another Cambridge area may be some time away.

Other Federal Programs

A variety of other, more specialized programs may also be tapped to implement the Plan. For example, Alewife Boulevard and Concord Avenue upgrading are eligible for funding under the Department of Transportation's Urban Systems Program because they would be a major part of the City's transportation system.

These sources will be investigated further as special needs are identified by the technical studies ahead.

Commercial Area Revitalization District Plan

Recently the State Department of Community Affairs instituted a program of tax-exempt revenue bond financing for commercial area revitalization. In order to qualify, municipalities must submit a Commercial Area Revitalization District Plan (CARD) for approval. Then private, commercial, and industrial enterprises seeking to make capital improvements become eligible for special tax-exempt bonds, usually at below market rates. If the Urban Design Plan is accepted as a CARD, Alewife businesses could qualify for such financing for making improvements and for new development, which in turn, could assist the City in implementing parts of the Urban Design Plan.

The Private Sector

Realizing the maximum potential of Alewife depends on responsible and effective decision-making by the private sector also. More awareness and cooperation among Alewife landowners and businessmen could significantly increase the chances of creating a better Alewife environment for everyone. The Alewife Businessmen's Association is a good beginning as a mechanism to coordinate private decision-making and to educate private sector interests about larger Alewife concerns.

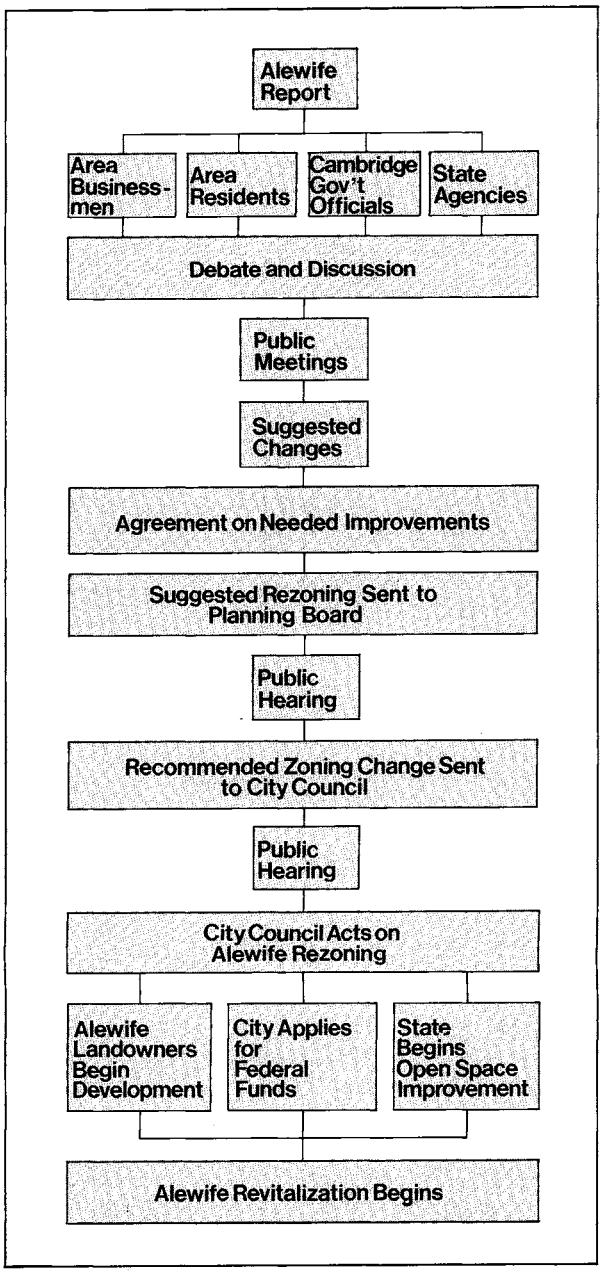
Sometimes a more formal cooperative relationship among landowners and businessmen has been found useful in large scale development areas like Alewife. Legal partnerships like private development corporations can prove advantageous in planning and constructing large projects, including mutually beneficial amenities. Whether or not an Alewife development corporation is needed should become clearer as development begins.

The Decision-Making Process

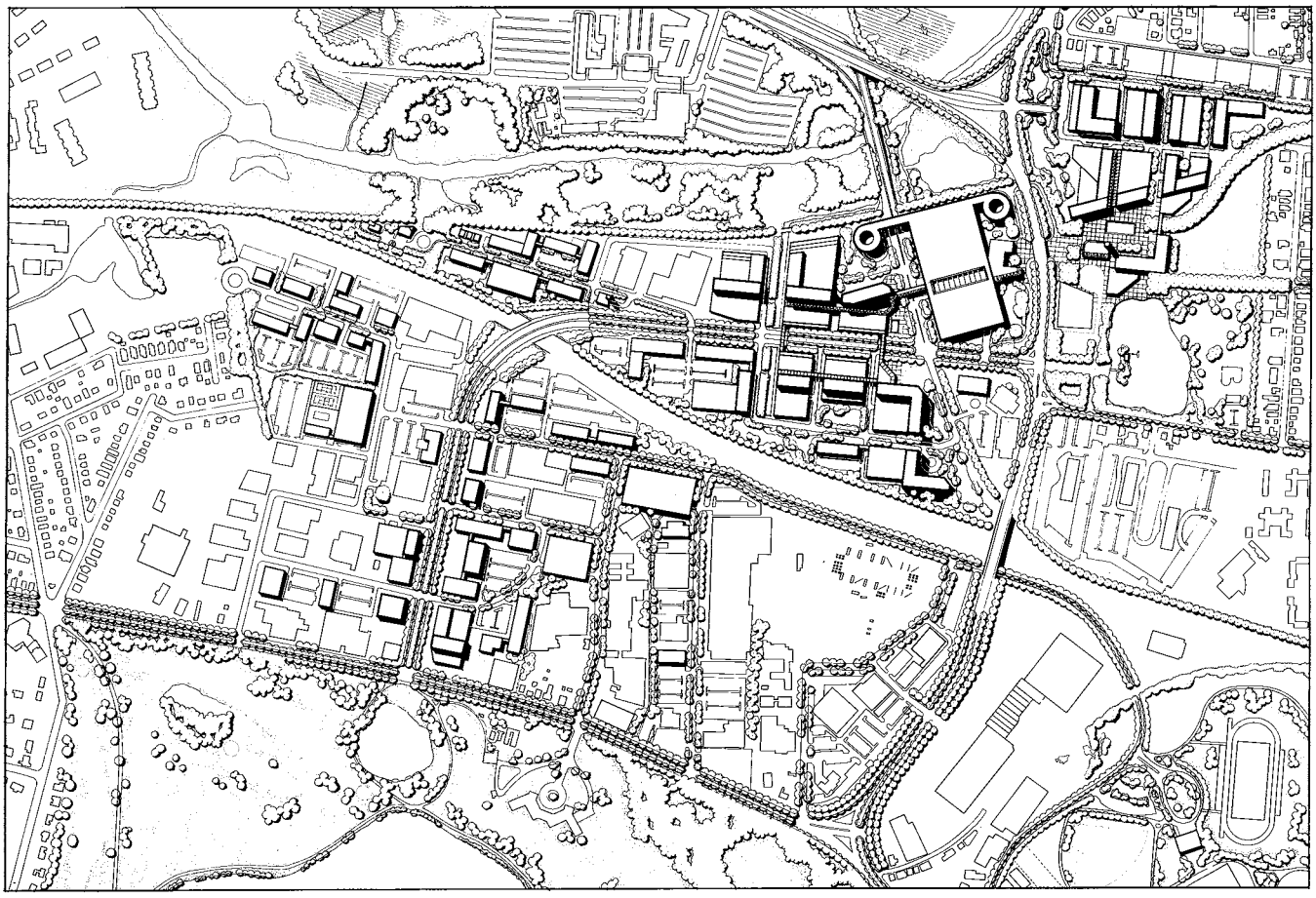
What happens now to the Alewife Urban Design Plan? The next step is an active public discussion over the next few months about the future of Alewife by all the affected parties: businessmen, area residents, state agencies, and local government. There may be ways in which the proposed Plan can be improved. If so, they should be proposed, debated, and, if needed, incorporated into the plan. A series of public meetings will be held to explain the Alewife Urban Design Plan and give everyone an opportunity to comment and suggest changes.

When a consensus seems to have been reached about a desired route for Alewife growth, a rezoning proposal will be prepared by the Cambridge Community Development Department and submitted to the City Planning Board and to the City Council for official action. A series of formal public hearings will then take place, and again people will be able to comment on the Alewife Plan as represented by the zoning proposals. Public hearings on Alewife rezoning will be advertised two weeks in advance, according to law, in the local newspaper — *The Cambridge Chronicle*. After the City Council has all the information it needs to make a decision, it will either adopt the rezoning petition as proposed, send it back to the Planning Board for revision, or decide against rezoning.

If the City Council acts favorably on Alewife zoning changes, the work of implementing the other three sections of the Alewife Urban Design Plan must start. Federal and state funding for roadway improvements must be acquired, local open space planning goals must be coordinated with the state agencies controlling Alewife, and individual landowners and developers must be made aware of and encouraged to incorporate the design guidelines of the Plan. Slowly, the face of Alewife should change as each separate public or private improvement is completed. Eventually the Alewife of today, a decaying collection of disparate buildings, rundown parking lots, and unimproved open space will be replaced by the Alewife of tomorrow, a vibrant, well-planned commercial industrial district in the midst of acres of invaluable and beautiful parkland.



87. The Decision-Making Process



88. The Alewife Urban Design Plan
For further information contact: Cambridge Community Development Department, 498-9034.

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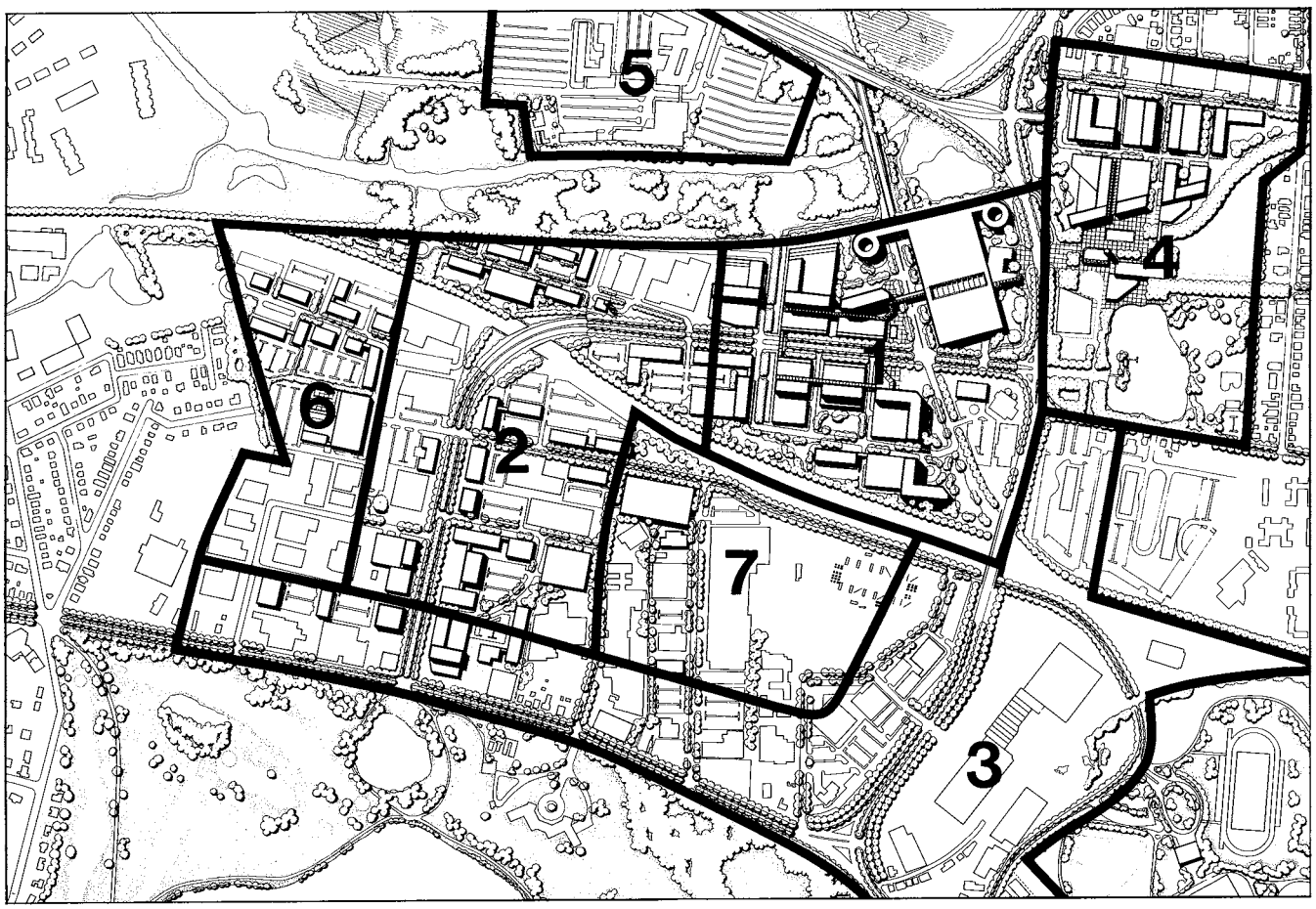
Appendix One

District Development Policies

This Urban Design Plan establishes a series of "design principles" and "development policies" to guide future growth. These principles and policies are intended to provide a framework to evaluate and coordinate public and private actions to effect immediate and qualitative improvements in the physical and social environment of Alewife. Although future development may depart from some of the details presented here, the spirit of the plan should be continued in the actual project execution phase.



89. Alewife Development Districts
1. *Alewife Station,* **2.** *Alewife Boulevard,* **3.** *Parkway,* **4.** *W. R. Grace,* **5.** *Acorn Office Park,* **6.** *West Alewife Industrial Park,* **7.** *East Alewife Industrial Park.*

General Alewife Principles

Recognize differences within the Alewife area and treat each District (see map) appropriately in terms of development regulations and public improvements.

Create an environmental image in Alewife which establishes parkways and boulevards as prestigious business locations.

Encourage development on individual parcels which will contribute to an upgrading of economic activity and add diversity to job opportunities.

Develop in Alewife a wide range of public and private open space amenities.

Organize flood retention areas as public amenities and incorporate them into a publicly accessible open space network in Alewife.

Minimize the amount of surface parking and impervious cover built in new development to help mitigate Alewife's hydrology problems.

Solve hydrology problems in an organized and cooperative effort among land owners.

Design Guidelines

Use:
Limit the range of industrial and commercial uses presently allowed in Alewife.

Reduce the scale and amount of potential development allowed in Alewife today.

Set building and parking lots back from public open spaces and residential areas.

Scale:
Limit building height near public open space and residential areas.

Allow greatest building height around the MBTA transit station and garage.

Form:
Maximize potential views to open space from new development through building arrangement and orientation.

Arrange buildings and private open space within individual development parcels so that they contribute to a unified open space system in Alewife.

Design building massing and orientation to minimize shadows on open spaces, boulevards, and parkways.

Linkages:
Develop parkways and boulevards as linear open space connectors.

Develop pedestrian/bicycle paths in private development which connect to public paths.

Design Details:
Encourage landscaped courtyards which frame views to parkways and open space.

Encourage articulated building facades and rooflines, particularly those fronting on boulevards, parkways, and open spaces to prevent blank or uninteresting building walls.

Use building materials such as steel, metal panels, glass block, tile and glass to reflect the high-technology image of the proposed research and development activity at Alewife.

Incorporate major building signs into building facades or develop signs as interesting landscape features. Business signs should not be visually intrusive or dominate the visual environment of the district.

Place store or shop signs into a sign band on building facades or place inside display windows.

Encourage trademarks and symbols as the only projecting signs in new development.

Centralize refuse storage and screen such areas from view from all public ways and open spaces.

Eliminate unnecessary barriers to free movement by the disabled.

Screen parking areas from view from Alewife Boulevard, Alewife Canal, and Alewife Reservation.

Development District No. 1 Alewife Station

Principles

Create a highly visible and active community center for Alewife and the surrounding area.

Encourage coordinated development with a broad range of day/night uses.

Encourage new development to maximize transit usage by employees, customers and other visitors.

Reclaim Alewife Brook as a significant visual amenity, creating a new water feature ... Alewife Canal. At the same time, use the canal for expanded flood retention.

Create a strong and inviting pedestrian environment around Alewife Canal.

Create direct pedestrian linkages from the MBTA Station and garage to new development through upper level pedestrian bridges wherever possible.

Design Guidelines

Use:
Discourage free-standing shopping centers.

Encourage mixed-use development in the approximate percentages: 15% commercial, 15% housing, 15% hotel, 10% conference, and 45% office.

Encourage housing to provide 24-hour use of the district.

Require structured parking facilities for large scaled mixed-use development.

Scale:
Limit the floor area ratio in the district to 3.0.

Limit building height to a maximum of 200 feet, under Special Distrct Overlay conditions.

Limit building height within 100 feet of Alewife Boulevard right-of-way to 55 feet.

Limit building height along the western side of Alewife Canal to 55 feet to prevent shading of the Canal.

Limit building height to 45 within 100' of Alewife reservation. Maintain a 20-foot building setback from the Alewife Canal easement. Maintain a 25-foot building setback from Alewife Boulevard.

Set back buildings from Alewife Reservation at least 20 feet.

Form:
Build to the building setback line along Alewife Boulevard.

Establish a principal front wall plane along Alewife Canal.

Concentrate commercial activity along pedestrian shopping arcades and Alewife Canal.

Respect the grid created by Alewife Boulevard and Alewife Canal.

Limit curb cuts on Alewife Boulevard.

Linkages:
Provide direct pedestrian access from the transit station to new development.

Encourage a pedestrian arcade along the east side of Alewife Canal.

Create a visual axis which extends along Alewife Boulevard and ends in a focal element at Jerry's Pond.

Design Details:
Create an active urban plaza as a primary focus for new development activity at the corner of Alewife Boulevard and Ramp Street.

Maintain retail continuity along all shopping arcades and along the east side of Alewife Canal. It is suggested that 50 percent of this commercial frontage should be occupied with retail commercial use.

Develop colorful, active uses on all ground floor areas with at least 50 percent transparency in the building facade to enliven and enrich the pedestrian environment.

Encourage decorative paving such as brick, quarry tile, or granite for all plazas and sidewalks.

Provide in all large public plazas seating areas, shade and flowering trees, reflecting pools or fountains, information kiosks, exhibition areas or other public amenities.

Develop along Alewife Canal small scale plazas for outdoor cafes, street vending, retail marketing, and outdoor exhibitions.

Development District No. 2 Alewife Boulevard

Principles
Encourage high quality development that contributes to an overall upgrading of economic activity and job opportunities within the area.

Design new development to reinforce the park-like image of Alewife Boulevard.

Design Alewife Boulevard to be a linear open space connector.

Design Alewife Boulevard as a regional wildlife corridor connecting Fresh Pond Reservation with Alewife Reservation.

Use abandoned portions of freight rail rights-of-way for pedestrian bicycle paths and as landscape buffer areas.

Design Guidelines
Uses:
Encourage office, research and development activity.

Minimize surface parking.

Consider wholesale trade and industrial uses as secondary, less desirable uses.

Scale:
Limit the floor area ratio in the District to 2.0, as a matter of right.

Limit building height to a maximum of 85 feet, as a matter of right.

Maintain a building setback of 25 feet from Alewife Boulevard.

Limit building height to 45 feet within 100 feet of Alewife Reservation.

Maintain a minimum of 20 feet of building setback from Alewife Reservation.

Form:
Arrange new development so that it respects the grid formed by the proposed street system.

Encourage a variety of building heights from 5 to 8 stories.

Limit curb cuts on Alewife Boulevard. Provide direct access to all service areas and parking areas from secondary streets.

Linkages:
Create a pedestrian/bicycle path to Belmont Center along the northern side of the Fitchburg Maine line.

Create a visual axis which extends along Alewife Boulevard across Concord Avenue and terminates in a vertical fountain in Black's Nook Pond.

Create a bicycle/pedestrian path along Alewife Boulevard and along Park Street to the new City Park to be developed on the Cambridge Dump.

Design Details:
Develop private open space amenities along Alewife Boulevard that are attractive and accessible to the public.

Create a landscaped buffer between new development and the Fitchburg Maine Line.

Create an edge embankment for Alewife Boulevard Bridge that is gently sloping and planted with trees and shrubs.

Create a vertical element associated with the Nature Center to terminate the visual axis created down Steel Street and to use as an observation tower.

Develop colorful, active uses at the ground floor level with at least 50% transparency in the building facade to enliven and enrich the pedestrian environment.

Encourage decorative paving such as brick, quarry tile, or granite for all plazas and sidewalks.

Screen parking areas from view of Alewife Boulevard and Alewife Reservation.

Development District No. 3
Parkway District

Principles

Develop parkways and boulevards as open space connectors.

Develop parkways and boulevards as regional wildlife corridors, connecting the Charles River, Fresh Pond, Alewife Reservation, and other open spaces along Alewife Brook.

Insure a gradual transition from new development to Fresh Pond Reservation to prevent visual intrusion.

Create a safe and attractive pedestrian environment for pedestrians and bicyclists.

Design Guidelines

Use:

Encourage office, research, and development activities.

Allow residential use only on a case-by-case basis.

Discourage auto-oriented uses such as fast food restaurants and other highway commercial uses.

Concentrate commercial activity on Alewife Brook Parkway.

Minimize surface parking in new development.

Scale:

Limit the front edge of buildings abutting Alewife Brook Parkway and Concord Avenue to 55 feet and step back taller portions of those buildings.

Maintain a minimum building setback of 25 feet from Alewife Boulevard, Alewife Brook Parkway, and Concord Avenue.

Maintain a minimum parking lot setback of 25 feet along Alewife Brook Parkway and Concord Avenue.

Form:

Arrange buildings and parking areas to create an attractive front yard to contribute to the parklike character of adjacent open space and roadways.

Orient primary building elevations toward Alewife Brook Parkway, Concord Avenue, and Alewife Boulevard.

Limit curb cuts on Alewife Boulevard, Alewife Brook Parkway, and Concord Avenue.

Linkages:

Create safe and convenient pedestrian crossings along Alewife Brook Parkway and Concord Avenue.

Create pedestrian/bicycle paths along Alewife Brook Parkway and Concord Avenue.

Encourage additional pedestrian/bicycle paths to be built in private development which connect to public paths.

Design Details

Develop colorful, active uses at the ground floor level with at least 50% transparency in the building facade to enliven and enrich the pedestrian environment.

Encourage decorative paving such as brick, quarry tile, or granite for all plazas and sidewalks.

Screen all parking areas from view from Alewife Boulevard, Alewife Brook Parkway, and Concord Avenue.

Development District No. 4
W. R. Grace Area

Principles

Encourage a high quality mixed-use development that marks the entry to Cambridge from Route 2.

Create an active, landscaped urban plaza around the east entry to the MBTA transit station.

Make landscape improvements to Alewife Brook Parkway to create a park-like setting.

Encourage development in which the first phase occurs around the east entry to the transit station and in phase with the construction of Alewife Station and Garage.

Encourage structured parking in all phases of development in the District.

Establish Jerry's Pond as a public open space amenity featuring boating, fishing and skating activities.

Design Russell Field Park to have both passive and active recreation areas.

Scale:

Allow under special conditions a maximum floor area ratio of 2.0 and a maximum building height of 85 feet.

Locate highest buildings around the east entry to the MBTA transit facility.

Step down building height as it nears residential or open space areas.

Design Guidelines

Use:

Allow mixed-use development of office, hotel, convention, retail, and housing.

Locate housing near the transit station and near open space to take advantage of mass transit use and views to Jerry's Pond, or Russell Field Park.

Locate retail uses adjacent to Grace Plaza on the ground level or in a shopping arcade that extends from Grace Plaza.

Minimize development impacts on Whittemore Avenue and Clifton Street.

Encourage structured parking in all phases of development.

Design building massing and orientation to minimize shadows on Grace Plaza, parkways, and open space. Encourage small scale courtyards off major pedestrian paths.

Create a public plaza at the north end of Jerry's Pond.

Establish a bus turn-around adjacent to the east entry to the MBTA Transit Station from Rindge Avenue.

Create a landscaped area at the corner of Alewife Brook Parkway and Rindge Avenue near Jerry's Pond to establish a new environmental image for the entry to North Cambridge Neighborhood.

Linkages:

Extend the visual axis created down Alewife Boulevard to Jerry's Pond.

Create a roadway hierarchy in the district in which access to hotels and parking garages are first order roadways with service and emergency access occurring on limited access paths.

Design Details

Enliven Grace Plaza by developing colorful, active ground floor uses with large transparent surfaces, colorful signs, ornamental lighting, awnings, and landscaping.

Encourage retail uses to extend into Grace Plaza with small sales pavilions, cafes, landscaped courtyards, and street vendors and entertainers.

Make the MBTA east entry building the focal point of Grace Plaza by building a tall vertical element in that space.

Create a major water feature in Grace Plaza.

Locate restaurants and cafes to take advantage of view of Jerry's Pond.

Establish a landscaped buffer between Jerry's Pond and Rindge Avenue.

Encourage decorative paving such as brick, quarry tile, and granite for all plazas and sidewalks.

Screen all parking areas from view from Alewife Brook Parkway, public open spaces, and residential areas.

Connect the linear park from Davis Square to Grace Plaza and the transit entry.

Extend a landscaped pedestrian/bicycle path from Dudley Street to Grace Plaza and the transit entry.

Connect Grace Plaza with a pedestrian path around Jerry's Pond.

Create pedestrian/bicycle paths along both sides of Alewife Brook Parkway.

Extend Grace Plaza under Alewife Brook Parkway to connect to the MBTA parking and transit facility.

Development District No. 5
Acorn Office Park

Principles

Create a prestigious office, research and development park in the district.

Screen parking from view from Alewife Reservation.

Insure a gradual transition from new development to Alewife Reservation to prevent visual intrusion.

Discourage development on wetland areas.

Design Guidelines

Uses:

Promote high quality office, research and development activity.

Prohibit highway commercial activity.

Allow residential uses under special conditions.

Scale:

Limit the floor area ratio in the district to 2.0.

Limit building height to a maximum of 85 feet.

Limit building height to 45 feet within 100 feet of Alewife Reservation.

Maintain a minimum building and parking lot setback of 50 feet from Alewife Reservation.

Development Districts 6 and 7
West Alewife Industrial Park
East Alewife Industrial Park

Principles

Promote the reuse of existing industrial buildings.

Minimize the impacts of new development on the bordering residential district.

Design Guidelines

Use:

Promote research and development activity.

Discourage warehouse, distribution, and heavy industrial uses.

Scale:

Limit building height to a maximum of 65 feet.

Limit building height within 100 feet of a residential district to 35 feet.

Limit the Floor Area Ratio to 1.5.

Maintain a minimum building setback of 50 feet from a residential property.

Design Details

Locate new loading areas completely off-street and screened from view from all public ways, open spaces, or residential areas.

Appendix Two

Table 5: Results of Subsurface Study — Alewife Area

Soil Zone	Premium Foundation Costs Per Sq. Ft. of Total Floor Area for Building with 1-Level	5-Levels	8-Levels	Utility Corridor Treatment Cost Per Lin. Ft.
1	$1.00-1.50	$0.30-0.40	$1.55-1.65	$5-$10
2	1.85-2.35	0.65-0.75	1.80-1.90	5-10
3	2.95-3.45	0.55-0.65	1.95-2.05	25-35
4	2.20-2.70	0.60-0.70	1.85-1.95	25-35
5	3.80-4.30	2.20-2.30	1.95-2.05	1.00-1.25
6	4.25-4.75	2.20-2.30	1.95-2.05	1.00-1.25

Source: *Subsurface Study — Alewife Area — Summary Report,* Haley and Aldrich, Inc., Table I.

Table 6: Comparison of Tax Revenues generated by various Cambridge land uses as compared to every $1.00 cost for Municipal Services.

Land Use	Revenue to Cost Ratio*
Housing	0.50
Stores	1.43
Auto Related Retail	5.49
Wholesale	1.65
Factory	2.39
Technical Office	1.84
General Office	3.01
Utilities and Communication	32.74
Recreation	.20
Hotels	3.44
Parking Lots	17.67
Vacant Land	2.55
Warehousing and Trucking	5.49

*Ratio of 1.00 or more means land use pays more in taxes than in costs the City of Cambridge in municipal services.

Source: *Cost Revenue Study — Part I, Direct City Services Costs and Revenue by Function,* Cambridge Community Development, Table VI, Pg. 24.

Table 7: Alewife Industrial Area Land Use Study

Alewife Area

Type of Land Use	Building Floor Area	Site Area in Acres	F.A.R.	Percent of Total Area
Service Retail	607,885	45.07	.31	11%
Office R & D	1,001,280	26.58	.87	8%
Industrial Warehousing	2,118,300	133.01	.37	11.8%
Hotel	156,000	4.9	.73	1.5%
Institutional Government	232,500	5.18	1.03	1.6%
Transportation Communication Utilities	—	103.71	—	32.7%
Totals	4,118,965	318.18	—	100

City of Cambridge

Type of Land Use	Building Floor Area	Site Area in Acres	F.A.R.	Percent of Total Area
Service Retail	3,932,000	137.2	.66	11.5%
Office R & D	8,727,500	280.6	.71	23%
Industrial Warehousing	13,286,200	359.6	.85	29.6%
Hotel	822,800	8.0	2.36	.6%
Institutional Government	7,321,200	251.2	.67	20.7%
Transportation Communication Utilities	—	171.2	—	11.5%
Totals	34,092,700	1210.8	—	100

Table 8: Forecast of Market Demand — Alewife Station Area 1975-1985

	Datum	Most Likely Range	Upper Limit
Residential[1]			
Single Family[2]	75 units	0- 200 units	300 units
Multi-Family[3]	900 units	600-1,800 units[4]	3,000 units
Total	975 units	600-2,000 units	3,300 units
Office	300,000 S.F.	100,000-500,000 S.F.	700,000 S.F.
Retail			
Convenience	40,000 S.F.	15,000-40,000 S.F.	60,000 S.F.
Shoppers	120,000 S.F.	30,000-500,000 S.F.	500,000 S.F.
Total	160,000 S.F.	45,000-540,000 S.F.	560,000 S.F.
Hotel/Motel	300 rooms	200-400 rooms	500 rooms
Industrial	20 acres	0-50 acres	50 acres

[1]Market Rate units only; does not include potential to construct below-market units.
[2]Includes one and two family structures, detached and attached units.
[3]Includes three or more units per structure.
[4]The high end of this range will likely be achieved only if public policy encourages this type of development and if development sites become available.
Source: *Red Line NW Market Demand Study — Summary Report*, Gladstone Associates, Table 3, pg. 7.

Table 9: Preliminary Forecast of Net Increase in Alewife Auto Usage as a result of Proposed New Development[1]

Area	Daily Trips (both ways)	AM Peak Hr. In	AM Peak Hr. Out	PM Peak Hr. In	PM Peak Hr. Out
W. R. Grace	11,500	680	230	375	650
Triangle	23,900	1810	520	820	1720
Quadrangle	12,500	2040	400	200	1580
Total	47,900	4530	1150	1395	3950

1. Net increase refers only to total trips resulting from development minus trips occurring today from land uses which will be displaced over time if new development occurs.

Note: These are not forecasts of total future Alewife traffic nor are increases forecasted here additive to existing Alewife traffic volumes. Comprehensive traffic forecast and assignment studies must be completed in order to identify accurately future Alewife traffic volumes, and assignment to particular roadways.

Source: Cambridge Community Development Transportation Planning Section.

Table 10: Alewife Land Ownership by Parcel See Figure 48, page 13.

Parcel	Sq. Ft.	Acres
1. Humble Oil Refining Co.*	73,180	1.68
2. Martignetti*	283,300	6.50
3. A. D. Little*	1,086,289	24.93
4. Steele Basket Company	37,500	.86
5. Concord Turnpike Realty Trust	50,000	1.15
6. William Bulton	57,960	1.33
7. A. D. Little*	261,435	6.00
8. Dodge Realty Trust	120,115	2.76
9. Jeanette & Marcia Yanofsky	107,158	2.46
10. Peter A. Prasse & Co., Inc.	152,628	3.50
11. Bethlehem Steel Company	148,104	3.40
12. West End Iron Works*	681,729	15.65
13. John T. Spinelli	82,576	1.90
14. Moore Investment Trust	143,717	3.30
15. Jack Katz	43,236	.99
16. John D. Lyons, Inc.	33,867	.77
17. Martin, Quinley, Orchard	16,172	.33
18. M.B.T.A.	340,000	7.80
19. Lehigh Trust	93,890	2.15
20. W. R. Grace*	1,119,711	25.70
21. Fresh Pond Shopping Center	706,709	16.22
22. County Seat Cafe, Inc.	68,907	1.58
23. Mary O'Donnell	26,206	.60
24. A. Tramontazzi	26,456	.61
25. J. & V. Adamian	72,800	1.67
26. R. & L. Gargill	48,750	1.12
27. Cambridge Redevelopment Authority	55,750	1.28
28. John A. White	152,178	3.49
29. Robert M. Malloy	20,382	.47
30. Robert A. Jones & George Najarian	29,400	.67
31. Tropical Banana Co., Inc.	20,853	.48
32. Pondview Realty Trust*	59,815	1.37
33. Anna T. Tucker	366,374	8.41
34. Abt Assoc., Inc.	120,362	2.76
35. M. E. Baker Co.	79,200	1.82
36. Ruby & Richard Fawcett	47,863	1.08
37. Fantasia Land Corp.	110,316	2.53
38. Robert Gair Company	213,093	4.89
39. Julia Wasserman	20,523	.47
40. Pennsylvania Mutual Life	51,520	1.18
41. Realtech Corp.	76,500	1.76
42. Senpek Realty Corp.	54,400	1.25
43. Realtech Corp.*	214,488	4.93
44. Harper & Shuman	34,268	.79
45. Moulton Realty, Inc.	92,370	2.11
46. Spinelli	98,171	2.26
47. Cooperative Reserve Supply, Inc.	92,622	2.13
48. Cooperative Reserve Supply, Inc.	82,500	1.90
49. Sands, Taylor, & Woods Co.	71,940	1.65
50. Anderson & McQuaid	23,106	.53
51. Rex Lumber Company	130,987	3.01
52. Tenva Realty Corp.	59,334	1.36
53. Stic Clip Manufacturing Co., Inc.	53,600	1.23
54. Wilson Realty Trust	309,901	7.04
55. Arthur & Paul Arakelian Co.	29,784	.68
56. Francis H. Curtin Insurance Co.	25,000	.57
57. Angel & Richard Parseghian	12,000	.27
58. John T. Spinelli	45,526	1.05
59. Carl Heinrich Corp.	14,864	.34
60. Affiliate Realty Trust	36,847	.85
61. John T. Spinelli	38,081	.87
62. Alice Arakelian	19,500	.48
63. Del Realty Trust*	37,196	.85
64. Concord Realty Trust*	73,035	1.68
65. Comstock & Westcott, Inc.	73,371	1.68
66. William & Eleanor Wagner	21,400	.49
67. Sancta Maria Hospital*	14,200	.33
68. Sancta Maria Hospital	225,828	5.18
69. Spintone Realty Trust	23,213	.53
70. City of Cambridge	100,000	2.38
71. The Fairbanks Company	38,699	.88
72. John T. Spinelli	72,506	1.65
73. John T. Spinelli	21,756	.50
74. Horn Bros., Inc.	72,358	1.66
75. Cambridge Electric Light Co.	17,000	.39
76. A. O. Wilson*	37,200	.85
77. Trabino, Giovanni, Conniff*	20,694	.48
78. Wilson Cambridge Realty Trust	60,033	1.38
79. Spinelli	18,981	.44
80. SISA	33,600	.77
81. John T. Spinelli	53,100	1.22
82. Yellow Properties, Inc.*	257,969	5.92
83. Achorn Steel Co.	53,567	1.23
84. James Farina Corp.	149,514	3.42
85. Tenva Realty Corp.	40,961	.94
86. Benjamin B. Goodman*	60,000	1.33
87. Wilson Cambridge Realty Trust*	48,732	1.12
88. Harvard College*	296,459	6.88
89. Anderson & McQuaid*	50,056	1.15
90. Charles J. Maliandy*	50,036	1.15
91. Israel & Dora Ratner Trust	48,015	1.10
92. Salem Realty Trust	93,932	2.15

*Parcels containing large vacant areas ready for development
Source: Tax Assessors Records — 1978

Table 11: Jobs/Acre of Alewife Land Use

Land Use	Sub-Area ADL	Triangle	Quadrangle	Fresh Pond	Total Study Area
Hotel	21.7			27.5	23.7
Heavy Industry		16.9	23.0		19.4
Light Industry		30.9	7.8		6.2
Institutional/ Government					—
Open Space/ Recreation				9.0	9.0
Research & Develop/Off.	123.4	50.5	87.5		92.6
Retail			14.4	27.4	23.9
Residential: 1 — 3 units					—
Residential: Apartments					—
Service	11.5	33.7	65.3	24.6	42.9
Transp./ Utilities/ Constr.					—
Vacant					—
WWholesale/ Warehouse		6.9	10.4		8.4
Total	**26.5**	**11.4**	**16.3**	**8.0**	**13.9**

Source: 1976 Alewife Employer's Survey.

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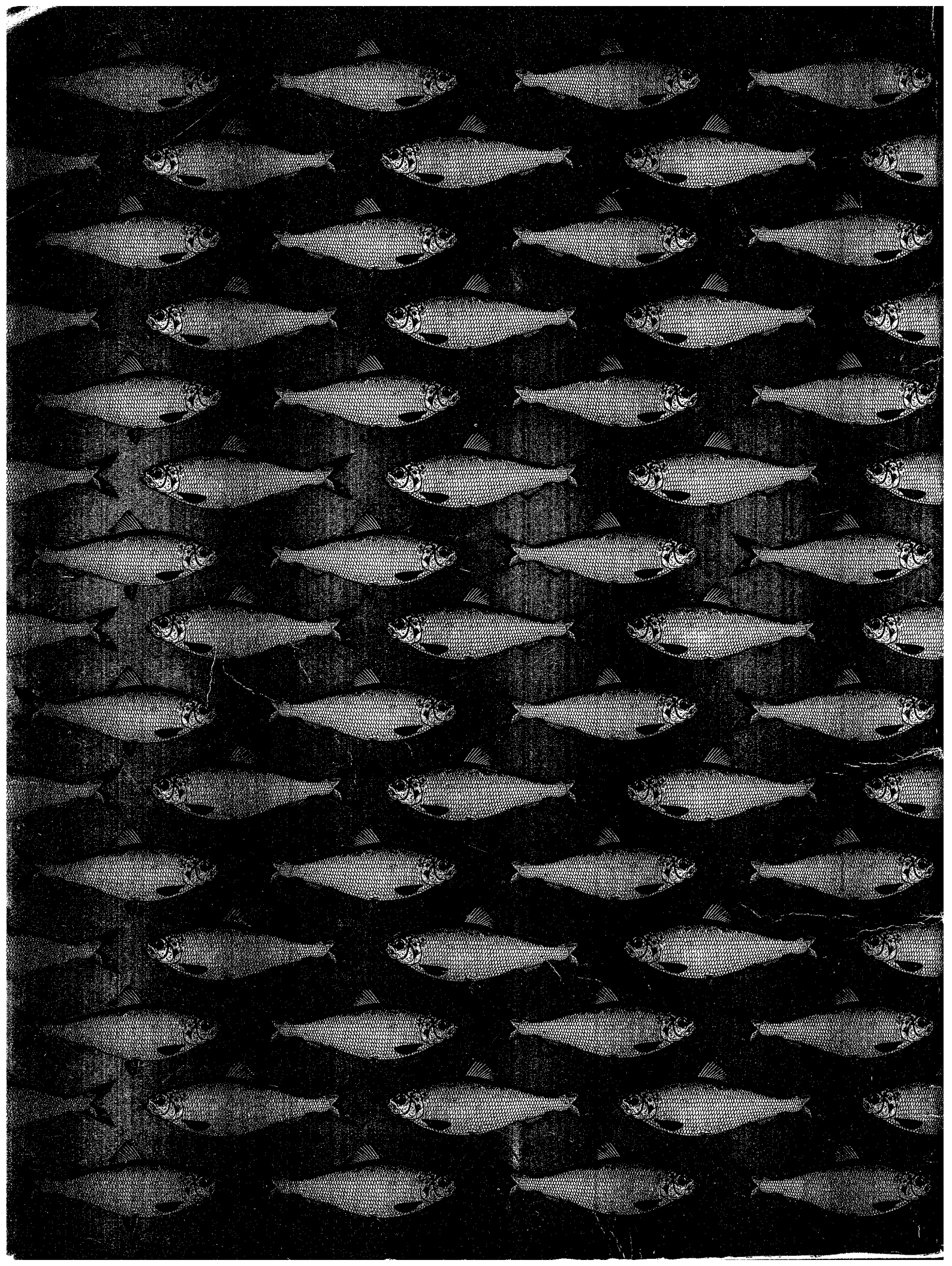
	Aerial Photograph: Aerial Photos of New England
1-9.	Stephen Wheeler, photograph
10.	Cambridge Community Development
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15-16.	Cambridge Community Development
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47-49.	Cambridge Community Development
50.	Rendering: Daniel Raih
51-52.	Stephen Wheeler, photographs
53.	Rendering: Alan Ward
54-55.	Cambridge Community Development
56.	Alan Ward, photograph
57.	Stephen Wheeler, photograph
58-59.	Cambridge Community Development
60.	Cambridge Community Development interpretation of the Carol R. Johnson and Associates' Master Plan for the City Dump Site
61.	Cambridge Community Development
62.	Rendering: Daniel Raih
63-66.	Cambridge Community Development
67.	Everett and La Barbara Fly, photograph
68.	Rendering: Daniel Raih
69-72.	Cambridge Community Development
73-74.	Renderings: Bruce Hendler
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86-89.	Cambridge Community Development