ACQUISITION AND DEVELOPMENT STRATEGIES FOR THE EMERSON COLLEGE PROPERTIES

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by James M. McCormack and Bernard I. Schachter

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ABSTRACT

This thesis analyzes the development risks and opportunities involved in the acquisition of fourteen properties owned by Emerson College, and located in the Back Bay and lower Beacon Hill neighborhoods of Boston. Due to opposition to further expansion in these largely residential and highly desirable neighborhoods, Emerson College decided in early 1985 to try to capitalize on the rapid increase in the value of their property and build a new campus elsewhere in the Boston area. They propose to sell the properties to a developer and, for an interim period of approximately two years, lease them back while the new campus is being built. At the end of this period the properties would be available for rehabilitation and conversion to residential condominiums or other appropriate uses.

The focus of the thesis is an assessment of the properties and the potential market for residential condominiums. Given the large volume of space, an in-depth market study is needed to determine the appropriate marketing mix, pricing and likely absorption of condominiums in the properties. An inventory for each of the properties describes the opportunities and constraints posed by their physical condition, layout, location and adjacent uses. The market study includes a discussion of the past, present and future factors likely to affect housing supply and demand in the city, including demographic trends, employment growth and government policies. In addition, there is an analysis of the specific market trends in the subject neighborhoods, including typical user profiles, a statistical analysis of recent condominium transaction data, and discussion of market comparables and potential competition.

The results of the market study are combined with the property inventory to create development plans for each property. These describe the marketing and design strategy, including unit mix, pricing and quality. The projected revenues are placed in a pro forma development budget, including construction and soft costs, in order to derive an estimate of the current value of the development opportunity. The sensitivity of the derived value is then tested under varying assumptions of construction costs, selling prices, and interest rates.

In the final chapter alternative strategies for minimizing development risks and maximizing the value to both Emerson College and the developer are examined. This includes a discussion of phasing and market timing, and explores the potential benefit of a joint venture and a syndication.

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I. INTRODUCTION

(A) Background

In early 1985, amidst growing neighborhood opposition to Emerson College's continued growth in Boston's Back Bay and Beacon Hill neighborhoods, Dr. Allen E. Koenig, the president of the college, announced the school's intent to sell the bulk of Emerson's properties in order to finance a relocation to a new campus. As many as fourteen properties located nearby many of the city's most elegant and expensive townhomes, condominiums and apartments, along Brimmer Street, Beacon Street, Berkeley Street, Charlesgate East and Commonwealth Avenue, would be available for purchase and conversion to another use.

It had become increasingly clear to Emerson College officials that the rapid inflation of property values in the downtown neighborhoods in recent years, resulting from increased demand for the convenience and charm of these inner-city neigborhoods among an expanding urban workforce, was both a boon and a curse to Emerson College's expansion plans. While neighborhood opposition to any further expansion has grown, largely because the school's students and activities are considered a detriment to the quality of life in the densely populated area, the increased value of the school's real estate has created the opportunity to afford a newly built campus in the Boston area, an idea that appeared financially infeasible just a couple of years ago.

During initial conversations with us, Emerson College officials indicated their favored approach to the eventual disposition of the properties was to seek a single

buyer/developer for the entire package. The reason for this approach was the need to create a means for financing the construction of the new campus: the value of the existing properties has to be realized two to three years before the buildings are vacated. A single entity would be easier to work with during the important transition period and, it was hoped, would be able to put together a creative acquisition and financing package satisfying the school's need for money up front for the development of the new campus. The officials recognized, however, that the greatest value might be realized by selling the properties off individually to the highest bidder. In any event, Emerson officials made clear their intent to move very quickly with the hope of identifying a new location and developing a Request for Proposals (RFP), with a package of materials on each of the existing properties for prospective buyers, by the end of the summer, 1985. The process of planning and programming for a new campus would begin during the summer as well.

By early July, 1985, Emerson College had been looking for a new campus site in earnest for several months without success. A few desirable sites had to be eliminated from consideration due to neighborhood opposition or, in the case of the Brook Farm property in West Roxbury, constraints imposed by the historic landmark status of the site. Difficulties in locating a new site, therefore, have placed the timing of the proposed disposition of the properties, if not the reality of relocating altogether, in question at the time of this writing.

(B) Scope of Study

The purpose of this thesis is to provide a factual and analytical framework for structuring the acquisition and development of one or more of the Emerson College properties. In the first portion of the study, we have evaluated the potential of the fourteen Emerson College properties based on current market conditions, a starting point for a discussion of alternative deal structures based on the unique circumstances involved. This portion of the study includes a determination of the highest and best use for each property, an estimate of the construction and development costs for creating the intended use, and, finally, an estimate of the value of the development opportunity for each property. Essentially, we are determining what price we would pay for each property today, based on current market conditions and assuming the buildings would be vacant for the purpose of development following a typical period for negotiation and conclusion of the sale. The analysis includes an assessment of any public approval issues that are relevant to a given property, including zoning issues.

Having developed an understanding of the marketplace based on current conditions in the first portion of the study, in the final portion of the study we assess the opportunities and risks involved in acquiring and developing them in the context of Emerson College's unique requirements. Significant risks will confront a developer interested in an aquisition of the entire group of properties by virtue of the timing gap between Emerson's need for funds and the availability of the buildings vacant, and

the difficulty in predicting market demand and absorption for such a large volume of space at a time far in the future. Clearly, a creative approach to structuring a transaction is called for, one that, in recognition of the risks and concerns of each party, is unlike a typical buyer/seller transaction in which the relationship between the parties is short-lived and based strictly upon immediate financial concerns and conditions. The transaction should meet the financial needs of Emerson College but, perhaps equally significant, it should integrate the less quantifiable goal of a smooth transition to a new campus. Alternative strategies for structuring a transaction based upon this general approach are presented in the last portion of the study, and are evaluated in terms of their benefits and risks to each party.













(B) SUMMARY EVALUATIONS

69 BRIMMER STREET is currently used as a theatre arts facility and is equipped with special dance floors and foot railings, functional auditoriums, make-up rooms, and costume closets. The building also contains classroom and office space.

Opportunities: This is a large building that occupies two corners allowing it to have windows on three sides. It is situated in lower Beacon Hill within easy walking distance of the Public Garden, the shops and stores on Charles Street, and the central business district of downtown Boston.

Constraints: A potential problem is presented by the water table problem facing much of the immediate area. This issue is addressed in more detail in a subsequent chapter. The building has two entrances on Brimmer and one on Mt. Vernon, but since there is virtually no setback from the street, these entry ways are neither private nor grand. The interior of the building has an unusual layout that varies from floor to floor, though it is consistent with its institutional use. For this reason it may pose design difficulties for conversion to condominium units. Deeded parking is limited to two spaces in the alley.

96 BEACON STREET currently functions as the student union building and is sited at the Embankment Road corner diagonally across from the Public Garden. It was formerly the Engineers Club of Boston and has a long, open layout with a large foyer.

Opportunities: The building is located conveniently to all of downtown Boston. It has the potential to be a large single

family residence or it can be converted into condominium units. The rear windows on the upper floors offer views of the Charles River.

Constraints: Even though the building has exposure on three sides there are just a few windows toward the back of the longest exposed side. Since the building is quite deep and narrow it would be desirable to punch in some windows along this side to allow natural light penetration into the interior. This would be expensive to install and may be additionally costly if the necessary approvals are difficult and time consuming to obtain. The location, adjacent to the Embankment Road entrance to Storrow Drive, as well as the pedestrian bridge to the Esplanade, is highly trafficked and noisy. The building has only two parking spaces, located in the rear alley.

100 BEACON STREET is a former apartment building located on the northwest corner of Embankment Road. It is a 10-story building with river views from the back and Public Garden views from the front and side. It has easy walking access to all of downtown Boston. The building's current use is split between dormitory and office space with a bookstore in the basement.

Opportunities: Few structural changes are required to partition most floors for condominium units. Existing apartment layouts are reasonably efficient. The views from most of the floors are an attractive amenity. The entry way and foyer have some nice detail that creates a pleasant arrival space.

Constraints: Several adjacent buildings are owned by Fisher Junior College which will have some negative impact on the converted value. Since the building will convert to approximately 50 condominium units, the limited availability of parking (6-8 spaces in back) will be a constraint in the marketing of so many units at one location. Similar to 96 Beacon, location at the busy Embankment Road intersection will impact value, particularly for units on the lower floors.

126-128-130 BEACON STREET is utilized as the communications educational center. It contains radio and TV studios, classrooms, and the college's security office. Its location at the northeast corner of Berkeley Street makes it very accessible to all of downtown Boston.

Opportunities: The three contiguous buildings provide a creative opportunity to gain efficiency and configure condominium units of larger than usual dimension since there are three building widths and multiple entrances to work with. The property contains an attractive rear courtyard and a carriage house that might be converted to garage space for 8-10 cars. It offers attractive river views from the upper floors. Some of the interior detail and a grand stairway are quite attractive.

Constraints: The brownstone facade on each building is badly deteriorated and must be restored to a like-new condition. Due to the heavy investment in radio and TV studios the college may elect to retain these facilities. This might have some negative impact on the converted value of the nearby Emerson

properties, 143-145 Beacon, 303 Berkeley, and 132-134 Beacon Streets. The interior is a maze of hallways and rooms that is difficult to understand and negotiate, and will require substantial redesign for residential use. Little of the existing interior partitioning may be saved in the process.

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143-145 BEACON STREET is a double width building that is currently utilized for classroom and office space. It directly abutts the corner building at 303 BERKELEY STREET to which it is connected at the basement and fourth floor levels. Their location at the southeast corner of Berkeley Street provides easy walking access to all of downtown Boston.

Opportunities: These contiguous buildings provide an opportunity for creative configuration of condominium units of larger than usual scale and dimension. There is great detail, a marble entry and efficient layout in 303 Berkeley, which also benefits from windows on three sides. The availability of six parking spaces with these buildings will be helpful, in the highend marketplace.

Constraints: 143-145 Beacon Street has a badly deteriorated brownstone facade that will require complete restoration. Continued use of 126-28-30 Beacon Street (which is directly across the street) for day and evening communication courses might have some negative impact on the market value of these properties, particularly if the facades are not repaired. The current layout in 143-145 is inefficient and has minimal detail

worth preserving.

132-134 BEACON STREET is a double-width building that is currently serving as a dormitory. It is located on the corner of Berkeley Street and has an attractive marble entrance on that side. Its location at the northwest corner of Berkeley Street provides easy walking access to all of downtown Boston. 132 has a carriage house extension on the back with an enclosed courtyard.

Opportunities: The availability of a double building width allows the configuration of more creative condominium units and may permit more efficent use of the space on a net square footage basis. Attractive river views from upper floors enhance the marketability of this property. There is deeded space for up to 13 cars in the back which might be increased through reuse of the rear extension.

Constraints: The brownstone facade is deteriorated and needs restoration of both the flat surfaces and the ornamental window detail. Continued use of 126-28-30 Beacon (on adjacent corner of Berkeley) for day and evening communications courses may have some negative impact on the market value of this property. There is little interior detail, and the property requires considerable redesign for optimum efficiency.

148 and 150 BEACON STREET are currently utilized as libary, classroom and office space. Since 150 Beacon is a double width building (44 feet), the two addresses can be combined to form an unusually broad facade (66 feet) for a Back Bay address. Parking

space for eight cars is available in the back. Formerly the Fuller Mansion, 150 Beacon has some spectacular interior spaces and was recently renovated for its current use.

Opportunities: The buildings are two and half blocks from the Public Garden and are within easy walking distance of the central business district, Copley Square, and Charles Street. Each building contains substantial and elegant detail on the lower floors and has rooms of large scale and dimension. The space might be converted more efficiently on a net square foot basis by combining them and developing large, full-floor luxury condominiums.

Constraints: Neither building divides easily into smaller condominium units on a stand-alone basis. Reuse as a single extraordinary single family residence, or continued institutional use, are likely alternatives.

168 BEACON STREET is an unusually wide single building that is currently being utilized for classroom and office space. There is an attached single story extension in the rear. Views of the Charles River are available from the upper floors. Its central location provides easy walking access to all of downtown Boston.

Opportunities: The extra width of this building will allow for conversion to generously spaced condominium units. The first floor has nice detail and an attractive fireplace. The second floor front room has a very attractive ceiling mural, (blue sky

with accent clouds and cherubs), that is worth restoring.

Constraints: The brownstone facade and steps are badly deteriorated and will require restoration. The 53% efficiency ratio of net to gross area severely limits the revenue opportunity after the building is rehabilitated, unless efficiency is gained through substantial redesign. There are relatively few windows in the rear of floors one and two, making apartment layout difficult.

534 BEACON STREET is the former Fensgate Hotel and its 90 rooms are currently used as dormitory space. It is on the northeast corner of Charlesgate East adjacent to the start of the Route 1 overpass. The building contains an institutional-size kitchen and a large, newly-renovated dining area. It is 10 stories high and provides sweeping views of the Charles River Basin from the upper floors.

Opportunities: Due to its location and height, the views could be the key to marketing this property after it is renovated. The single story kitchen/dining area adjacent to the tower could be removed or possibly converted for additional parking space. The small size of the existing rooms suggests an alternative use as elderly housing on a purchase or possibly subsidized rental basis. The "Auditorium" and "Kenmore" MBTA subway stations are within a few blocks.

Constraints: This part of Beacon Street is situated between Massachusetts Avenue and Kenmore Square and is less accessible to downtown on foot. There is heavy vehicle traffic due to the

Storrow Drive access ramp behind the building. Much of the adjacent use is for college dormitories and fraternity houses. The rooms inside are quite small and despite the large building size (61,618 square feet) there are currently but 2 parking spaces in the back. The typical floor configuration with a long, narrow double-loaded corridor and shallow apartments, is not well-suited for luxury condominiums.

535 BEACON STREET is predominantly used as a dormitory with a small amount of space for offices. It was built in at least three phases and was originally used as an apartment hotel. The basement and first floor essentially cover the entire site. The second floor is donut shaped and open to the roof of the first floor in the center. The remaining floors stack in a u-shape around a central court allowing light into the interior spaces.

Opportunities: There is the potential for adding floor space to the building as the three apparent construction phases generated a different height for each section. The sixth and seventh floors could each pick up an additional 2,700 square feet by building over the east end of the south wing. The eighth floor contains only a small section over the center of the west side and could be expanded to create almost a full floor without destroying the exterior elevations of the building. There is also the opportunity to create roof decks for the top floor units which would provide another amenity and help solve the design of that addition in relation to the existing facade. The basement space which does not get enough light to give it serious consideration

for condo conversion could possibly accommodate some parking spaces if a suitable access could be designed.

Constraints: The overall condition of the property is very poor. All plumbing, electrical, mechanical systems, and elevators must be replaced with the possible exception of the main electrical service entry and the fire protection systems. Interior finishes, trim, doors, and hardward must all be replaced or restored. Approximately fifty percent of the windows have been replaced and the balance would need to be replaced with energy efficient units also. The masonry and stone exterior is in good condition on the Beacon Street and Charlesgate sides but needs cleaning throughout and significant repair on the Marlborough and interior courtyard faces. The building footprint covers the entire site with the exception of the encompassing sidewalk. Even though the facade is quite attractive, the lack of any setback mitigates the value of this amenity. Currently, there are no parking spaces, a serious handicap for such a large building.

355 COMMONWEALTH AVENUE, also known as the Ames Mansions, is a marvelously detailed building, both inside and outside. Having been renovated recently, it is currently a mixed-use property with a high-end mini supermarket, commercial office rentals, and office space for Emerson College. The market is separately accessed through a Mass. Avenue entry while the office space entrance is on Commonwealth Avenue.

Opportunities: This is a singularly beautiful and highly visible building and some of the space that Emerson occupies may be highly desirable to first class office users desiring a unique environment in a good location. MBTA bus and subway lines are very convenient, as is the Prudential Center, Hynes Auditorium and Newbury Street.

Constraints: Private parking is available for just three cars. However, residential parking is also available by sticker permit and the need for parking is mitigated by the building's proximity to MBTA train and bus stations. This is by far the highest quality property in the neighborhood which could result in some under-realization of its absolute potential. The fantastically ornate hallways and rooms on the first and second floors, currently occupied by Emerson offices, do not lend themselves to being subdivided thereby making for relatively inefficient office spaces. The fourth floor offices, with skylights, exposed structural members and unusually shaped rooms may not be appropriate for most high rent office users.

21 COMMONWEALTH AVENUE currently functions as classroom and office space. The building is between Arlington and Berkeley Streets, and has easy walking access to the Public Garden and all of downtown Boston. Parking space for three cars is available in the back. The property has Commonwealth Mall views in the front and sits on the north, or sunny, side of the street.

Opportunities: The building has a large entry leading to a grand staircase that is fronted by a large and attractive fire

place. It has the potential to be a large single family residence or it can be converted into condominium units. There is some attractive decorative detail and there are several nice fireplaces. Of special note is the richly panelled and highly detailed front room on the first floor.

Constraints: Efficient conversion to condominium units, in terms of maximization of net square footage, would be difficult given the orientation of the ground staircase. The brownstone facade and stairs are deteriorated and must be restored at a substantial cost.

III. MARKET ANALYSIS

(A) INTRODUCTION

(1) BACKGROUND

The fourteen Emerson College properties are all located within a short distance from each other in the Back Bay and Beacon Hill sections of Downtown Boston. The recent surge in residential property values in these adjoining neighborhoods is, as much as any in the city, indicative of Boston's economic resurgence in the late 1970's and early 1980's. During this period Boston has shed its image as the center of a tired, depressed region burdened with decaying and inefficient factories, and high taxes. It has emerged as a great city in which to live and work, evidenced by record high levels of new construction, a wave of restoration and reinvestment in older properties, a reversal from decades of population losses, and strong employment growth.

The tremendous growth in new office, retail and hotel development during this period permanently changed the Boston skyline from the financial district to Boylston Street in the Back Bay. This new construction occured in a political and social environment that was anxious to preserve the historic character and human scale of the nearby downtown neighborhoods. Back Bay and Beacon Hill had long been home to many of the city's most prosperous residents. During the 1950's and 1960's, however, a large portion of the aging townhouses, particularly in the Back Bay, had been converted to rooming houses and apartments, or to institutional uses as in the case of the Emerson properties. With

the recent resurgence of Boston's economy, these neighborhoods became prime residential targets for a suddenly expanding downtown workforce.

Drawn by the close proximity to the jobs and active life of the city, as well as by the strong character of the historic homes, the Back Bay and Beacon Hill continue to attract strong interest from the more affluent among the city's renters and homebuyers despite a price spiral that has accelerated in the last couple of years. As recent Boston Globe articles have indicated, housing values soared as much as 25% on average in the Boston metropolitan area in 1984, and realtors have indicated that some of the greatest increases have been in the Back Bay and Beacon Hill. ("When Houses Are As Good As Gold", David Warsh, The Boston Globe, May 7, 1985.) This surge in property values is the driving force behind Emerson Colleges's current plans for selling the properties, as school officials believe that they may be worth as much as \$90,000,000 (over \$200 per gross square foot), almost double the assessed value as of early 1985, and over five times the assessed value of 1983.

(2) CONDOMINIUM FOCUS

Most of the Emerson College properties, by virtue of their location, current zoning and/or original uses, which was primarily housing, are obvious candidates for conversion to condominiums. With over 400,000 square feet of space, which translates into several hundred new dwelling units, the sheer volume of new units potentially available in the properties raises significant marketing issues for anyone contemplating an

acquisition of some or all of the buildings. In addition to basic marketing issues, like the size of units, appropriate amenities, and price range, the volume of new units that might be brought onto the market in a short period of time suggests that a more comprehensive understanding of the size, nature, and depth of the market is necessary to determine both the value of the development opportunity and the risks involved.

We have focused on the condominium market as the presumed "highest and best use" for the bulk of the space, given the wellknown strength of the area's condominium market. Initially, therefore, we have looked to assess each building with an eye toward conversion for this use. A few of the properties, by virtue of their current use, legal/zoning status, size, location and/or layout, efficiency and character of the interior, may be more valuable and be better suited to uses other than condominiums. For example, 355 Commonwealth Avenue was recently renovated for office and retail use, and has some space under lease to tenants unaffiliated to Emerson. As such it is not likely to be a candidate for conversion to residential use. Since this property was very recently acquired by Emerson, (in 1984 for approximately \$3,000,000) for the purpose of this study we are limiting our analysis to a brief property inventory, and will use Emerson's recent estimated market value, \$3.2 million, in the analysis of deal structures.

In addition, 534 and 535 Beacon Street, the largest and most questionable from the point of view of market acceptance as condominiums due to their location, may be more valuable in their current use, as college dormitories. In fact, Boston University

has already made their interest in them well known. Their size and the history of 534 Beacon as a hotel indicate that a study for potential reuse as a hotel would be desirable. Such a study, comparing these potential uses, is the subject of an M.I.T. Center for Real Estate Development thesis being prepared simultaneouly with this one by John Clawson. We will not duplicate his efforts, but do recognize the potential for a higher use than condominiums for these buildings.

Alternative residential uses are possible for many of the properties as well, including development for rental housing. Typically, the rental alternative does not make sense if the market is strong for condominiums, due to the tax advantages of owning. Given the uncertainty of the condominium market in marginal locations, the potential tax credit availability, and the tight rental market in the Back Bay, a rental scenario for the larger 534 and 535 Beacon Street properties is a possibility. We discuss this alternative in the context of potential development strategies, but we have not done a detailed analysis of its feasibility.

Single users, either residential or institutional, are possible for a few properties, specifically 96 Beacon Street, 21 Commonwealth Avenue, and 148 and 150 Beacon Street, used together or individually. For these properties, we have still focused on the condominium alternative first, with the intention of looking for reasons why they may or may not be more suitable, from a physical or market point of view, for a different use. In addition, we recognize that a developer buying the entire package

of properties may want to reduce risk through diversification, even if the maximum potential value is in condominiums. This issue is addressed in the section on deal structuring.

(3) OUTLINE OF METHODOLOGY AND SOURCES

The residential market study we have undertaken has been organized, and was researched, around two distinct approaches toward developing an understanding of the residential market for the subject properties. The following is an outline describing the issues addressed and the methodology and sources used for each.

A. The Determinants of Housing Supply and Demand - Focus on Back Bay/Beacon Hill, Boston and the surrounding metropolitan area:

1. Demographics - What has been and/or will be the trend of population growth, income growth, household formation, and net immigration? Where do people live and do they own or rent? Which neighborhoods "compete" for the population groups most likely to experience growth?

2. Employment - What are the prospects for continued economic growth for Boston? Which industries have been and/or will be hiring, and what are the job types, wages and locations for these jobs?

3. Housing Inventory - How much housing and of what type and price range has been built, converted and absorbed, and where? What is the history of condominium development in the city

and Back Bay/Beacon Hill in particular? Where and how much have values risen? What are the projected housing needs for the city?

4. Affordability - What can those filling the new jobs afford, given their likely income levels? How will a rise in the costs of financing impact the demand for housing by various income groups? To what extent might high housing costs impact Boston's economic growth?

5. Government Policies - How has Proposition 2 1/2 impacted property values, and what are its likely long term impacts? What are the city's policies toward housing development, and how might they impact the supply of new housing? How might the proposed changes in Federal tax laws affect housing prices and housing construction?

The sources of information used for this analysis include various studies from the Boston Redevelopment Agency's research department, the Federal Home Loan Bank Board, and general and regional economic studies and forecasts by M.I.T. faculty and researchers, including William Wheaton and David Birch.

B. Identification of Specific Market Segments and Competition:

1. User Profiles - Identify and define potential
users/buyers of units (i.e. "yuppies", "empty nesters", singles,
"mingles", families, etc.). What types of units do they desire
and with what amenities? What are the key determinants of
locational choices for each user group?

2. Market History: Price Structure and Comparables - How many units have been sold of various types and sizes (Studio, 1 Bedroom, 2 Bedroom, etc.), in the immediate market area, and for how much? Which market segments seem to be underserved? What have the trends in values been, and have different locations appreciated at different rates? Which properties define the high end of the market? Are there comparables for the larger Emerson properties, and if so, what is their history? What can historical sales data tell us about the value the market places on location and building characteristics?

3. Competition - Identify potential sources of competition, both current and planned. How many competitive units are there, and what is the absorption history of each market segment? How many units are there, of what types, and in what price range? Which potentially competitive areas outside Back Bay/Beacon Hill (i.e. downtown, waterfront, Cambridge, Brookline, South End, Charlestown, Fort Point Channel, etc.) are most competitive? How many new units are planned/under construction in these areas, and which specific developments should we be concerned with? What is the relative attractiveness and price of each?

The sources of information for this section include interviews with and current listings provided by real estate brokers and direct observations from site visits. In addition, a database was developed and a statistical analysis of recent condominium transactions in the Back Bay/Beacon Hill area was performed.

(B) THE DETERMINANTS OF HOUSING SUPPLY AND DEMAND

(1) DEMOGRAPHICS

An understanding of the forces driving the housing market in Boston, and Back Bay/ Beacon Hill in particular, should begin with a review of the demographic trends of the recent past, including statistics regarding population growth and household formation. In order to gain greater insight into the specific composition of Back Bay/Beacon Hill households, it will also be useful to detemine their size, the age breakdown, income level, and the pattern of homeownership in these neighborhoods relative to the rest of the city. Lastly, projections of the likely population growth in the City and Back Bay/Beacon Hill will be examined.

According to census data compiled by the BRA ("The Demographics and Housing of Downtown Boston", Anne Hafrey, BRA Research Department, May 1985, pp. 1-5), the City of Boston lost 12 percent of its population during the 1970's, continuing the trend of the previous decade. Despite the population drop, the number of households increased by 1.8 percent in Boston during the decade reflecting a drop in the mean persons per household from 2.76 to 2.37. In contrast, the population in Back Bay/Beacon Hill increased by 10 percent and households increased by 8 percent as the mean size of the household dropped only slightly from 1.52 to 1.50. Not unexpectedly, these basic statistics indicate a couple of fundamental differences between the City as a whole and Back Bay/Beacon Hill: the population of these inner-city neighborhoods
stabilized and, in fact, began to expand earlier than the rest of the city, and they have a significantly different household composition.

The disparity in household composition between Back Bay/Beacon Hill and the City as a whole is evidenced by a far higher percentage of one and two person households: 92% versus In addition, 33% of Back Bay/Beacon Hill residents fall in 66%. the 24-34 age bracket with another 12% between 35-44 years of age, compared to only 19% and 9% for the same age groups in Boston as a whole. The median age for Back Bay/Beacon Hill is roughly the same as the City's, 28.6 versus 28.9, reflecting an increase of five years during the decade. This substantial shift resulted from a large influx of working age adults (83% and 59% increases over 1970 for the two age groups indicated), and a 16% drop in the younger, student-oriented age group. Echoing this shift in the composition of the Back Bay/Beacon Hill resident population are the homeownership statistics which indicate a 223% increase in owner-occupied dwelling units during the decade, while Boston as a whole showed no increase. Despite the dramatic change, the percentage of owner-occupied units remained below the city average, 18% versus 27%.

According to 1980 U.S. Census figures just over half of the 20,000 employed persons over age 16 in Back Bay/Beacon Hill were managers and professionals. This compares to a citywide average of 26 percent. Fifteen percent of all managers and professionals residing in Boston lived in these neighborhoods. Not surprising, therefore, is the fact that per capita income in Back Bay/Beacon Hill, at \$13,900, was more than double the citywide figure of

\$6,500. (From "Boston Population and Housing by Neighborhood Areas, 1980; Demographic Information from the U.S. Bureau of the Census", BRA publication, September 1983.)

The first part of the 1980's has seen a continuation of most of the trends established in the 1970's, though the population expansion of the inner-city neighborhoods is now being matched by growth in the city as a whole. Boston's population grew approximately 3% between 1980 and 1985, compared to an estimated 8% increase in central Boston neighborhoods (including the waterfront, North End, Chinatown, West End, South End and Bay Village, as well as the Back Bay and Beacon Hill). Households have increased approximately 6%, versus 12% in the downtown areas. Though specific occupational and income data is not available, the trends identified suggest a further concentration of managerial and professional workers and a widening gap between income levels in these neighborhoods and the rest of the city. In an analysis of population trends for Boston during the balance of the century ("The Future of Boston's Poor...Population Projections, by Race and Ethnicity, Age and Income, and Neighborhood -- to the Year 2000", Anne Hafrey, Gregory Perkins and Alexander Ganz, BRA Research Department, June 1985), the BRA projects continued population growth resulting from natural increases, trends in migration and household composition, and social trends, among other factors. More specifically, the factors identified include:

A. Natural Increase:

(1) A rising birth rate from an ebb in 1977, likely to peak in 1988-89, due to "echo boom" cohorts,

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reinforcing a New England trend for delayed childbearing until 30-44 age;

(2) A falling death rate due to longer life spans;

(3) A large and increasing minority population entering childbearing years.

B. Migration and Household Composition:

(1) The outmigration from 1960-1980 was due largely to maturing "baby boom" children leaving home for school, work, or new families. This trend is mostly over, and household size in Boston as a whole has dropped to 2.4 which is very low (San Francisco is lowest at 2.2);

(2) Census data indicates a net inmigration of 1,400 inSuffolk County from 1980-1982;

(3) The suburbanization process of 1950-1970 is greatly slowed due to restrictive housing markets and other social factors;

(4) The middle class, middle age outmigration of white families in the 1970's is diminishing as their share of the total population is smaller. Most of the very large "baby boom" cohorts are expected to remain in the city as they start families replacing many of the families that previously left;

(5) High levels of student inmigration, a major source of growth from 1960-1980, is threatened by a declining

college age population. Still, the national, regional and statewide scope of Boston's colleges should prevent shrinkage and may even allow further expansion of the student age population;

(6) Outmigration of the elderly should continue, influenced by high housing costs.

C. Social Trends:

(1) The lifestyles of the "baby boom" generation are much more city oriented than their parents' were;

(2) The sizable minority groups find community identity in the city, and are less likely to migrate out unless it is to other cities or regions. Racial strife and tension that exacerbated outmigration has been reduced signficantly;

(3) The decline of the Boston school system "has been stemmed and improvements are being made";

(4) The smaller families and households of the 1980's are better suited to the smaller sized housing units in the city;

(5) Concern about energy and environmental conservation, and "transportation efficiencies" have influenced people's decisions to live closer to work.

After analyzing and weighing these factors (taking into account their estimates of economic growth, employment gains and

production of housing, which will be addressed in subsequent sections) the BRA's "moderate" growth scenario projects Boston's population to grow to 600,000 by 1990, a 37,000 person (6.5%) increase over 1980. Though still only two-thirds the Census' projected "middle-growth series rate" for the nation as a whole, it would represent the first population increase for the city since the 1940's. At the same time, the number of households is expected to rise from 218,500 to 250,000, or 14%, as the average persons-per-household drops from 2.6 to 2.4. The 1985 estimate is a population of 580,000 and 232,000 households, indicating a further increase of 20,000 persons and 18,000 households by 1990.

More specific projections for the decade of the 1980's include: (a) a 7.5% increase in the white population, the first increase in many years; (b) an increase of 59,000 persons in the 30-44 age group, more than offsetting drops of 12,000 and 11,000 in the 45-64 and 20-29 age groups respectively; (c) an increase in the core working age population will occur despite a projected net outmigration of 23,000 persons in the 30-44 age group; and, (d) the Back Bay/Beacon Hill population will increase by approximately 3,000 persons.

CONCLUSIONS

The population trends for the balance of the 1980's, as projected by the BRA, appear to provide assurance to anyone contemplating housing development in Boston that considerable demand for new housing will exist. For the purpose of this study, the BRA forecasts imply that the trends established in Back

Bay/Beacon Hill during the 1970's, toward increasing homeownership (due to condominium conversions), will likely continue given the strong projected growth in the maturing babyboom population in their prime income earning years. The "echo boom" phenomenon, caused by baby boomers entering their childbearing years, is expected to occur simulataneously. This implies that the demand for larger units should be greater than previously experienced, and that security and access to good schools may be increasingly important. The attractiveness of Back Bay/Beacon Hill to this expanding market, relative to other parts of the city and region, will depend on many factors still to be addressed, including issues of housing availability, affordability, and the distribution of new job growth in terms of location in the city, job type, and income levels.

Beyond the impacts of natural increases, household composition and social trends, all of which the BRA believes will increase housing demand in the next several years, the BRA population forecasts depend to a large degree on their forecast of economic growth, and in turn, job growth for the city, and the addition of a sufficient number of new housing units to accommodate demand. We have addressed these components of the housing supply and demand equation in the following two sections on "Employment" and "Housing Stock".

(2) EMPLOYMENT

According to the BRA ("Downtown Planning and Housing Strategy", 4/19/85) between 1976 and 1984 total employment in Boston increased from 501,000 to 580,000, a 15.8 percent gain.

This job growth mirrored an investment boom in the city, as measured by an estimated \$4.5 billion of private construction in the 1976-1984 period, with \$2.8 billion concentrated in the downtown. Over 7.5 million square feet of office space, 3700 hotel rooms, and a million square feet of retail space was built in the downtown during this period, in addition to a substantial volume of renovation of older facilities. Downtown employment gains accounted for about one-half of the city wide increase, with 43,000 new jobs, a 17.7 percent gain. Of these, 36,000 were office jobs, an increase of 25.7 percent over the 1976 level.

The strong job growth has been driven by the structural transformation of the national and Boston economies, away from manufacturing, and toward services during the 1970's and early 1980's. According to BRA figures, Boston is the "preeminent services activity city among the nation's large cities", with 54 percent of the employment base concentrated in the broad range of office-related services activities -- communication, finance, money management, business and professional services. San Francisco and New York are close behind, at 51 and 49 percent respectively. Boston also leads in the share of services employment geared to exports, at 41 percent; San Francisco and New York are second and third again with 26 and 28 percent shares. The BRA concludes from this that "Boston's future is bright because of very favorable economic and demographic factors":

Projections of the employment outlook for Boston prepared by relating detailed analyses of industry trends in Boston to long-term projections for the U.S. economy, by industry, indicate a prospective growth of 100,000+ jobs in

Boston, in the 1985-95 decade, as a consequence of Boston's relative specialization in those industries expected to rise most rapidly nationally. Boston's unique concentration in communications, money management and finance, business and professional services, and the ties to the region's thriving hi-tech industry will be the principal motor of expansion.

The strength of the Boston economy, as well as the metropolitan area, state and region, in relation to the rest of the country is further evidenced by a comparison of unemployment rates over the last decade. While Boston and all of New England suffered relative to the rest of the country with double digit unemployment in 1975, at 12.8 and 10.3 percent versus 8.5 percent respectively, the trend since then has been toward consistently lower figures in the Boston area. This situation persisted through the 1981-82 recession, contrary to previous recessions in which the New England economy was particularly hard hit, and as of March 1985 Boston had the lowest unemployment rate, 3.9 percent, among the nations large metropolitan areas. (See attached exhibits 3 through 5, "Unemployment Rates for Boston, and Comparisons with the Metro Area, State, Region and Nation", and accompanying tables from "Boston Employment, Citywide, Downtown, Downtown Office, and Remainder of Boston 1976-1984 and Projections to 1990 and 1995", Jeffrey P. Brown and Gregory Perkins, BRA Research Department, April 1985.)

ANALYSIS

The scenario for likely employment growth described by the BRA is based on careful examination of recent economic trends and statistics, as compiled by the Census Bureau, the Massachusetts Division of Employment Security, the Commerce Department, and Department of Labor, and is based on the premise that the recent

structural changes in the local and national economies that brought about the dramatic reversal in Boston's fortunes will continue for the next decade. The concentration of Boston jobs in the services industries, high tech, education and medicine, all with a high "export-base" will lead to continued strong job growth prospects, and expanding opportunities will attract the workers to meet the demand. Mayor Flynn's and the BRA's recent approvals of several additional high rise office building developments signaled the administration's belief that the demand for office workers would continue unabated. Certainly, Boston seems well positioned to compete in those industries targeted for growth in the future, but one must still ask whether such growth, and the resulting demand for housing, is a foregone conclusion.

In 1980, the U.S. Bureau of Economic Analysis projected Massachusetts as the second lowest growth state for the rest of the century. By early 1983, their forecasts were revised significantly in response to the region's remarkable record of growth, as I described above. The point is that the experts have been wrong about Boston in the recent past, and given the dramatic and increasingly rapid changes in our economy over the last few years, no one can be sure what will occur even over a period as short as three to five years. In addition, the BRA has focused largely on the demand side of the employment equation, implying that a given demand for jobs will attract the workers to fill them. This assumption seems dangerous due to strong demographic trends that indicate a period with declining numbers of college graduates, the key group for growth in entry level

jobs.

An important supply side constraint to growth has been recognized by various economists and researchers who have cautioned against the assumption that anything like the recent growth in office space absorption could continue. Professors Wheaton and Torto have predicted a continuation of the historically high office vacancy rates based on the slower growth in the labor force which begins after 1985. ("The National Office Market: History and Future Prospects", William C. Wheaton, Associate Professor of Economics and Urban Planning, M.I.T., and Raymond G. Torto, Professor of Economics, Univ. of Mass., August 8, 1985.) Office employment growth rates peaked at 5.5 percent during the 1976-1981 period, corresponding to the entrance into the workforce of the majority of the baby boom generation. Wheaton and Torto conclude that "a continuation of past office employment growth rates would require an enormous shift to take place in the composition of the labor force, not only out of manufacturing, but trade and other sectors as well - and all into office employment."

David L. Birch, an M.I.T. researcher well known for his studies and forecasts of job creation, reaches similar conclusions based on a host of emerging trends he has identified. He believes that the businesses that fueled the office boom of the last several years will be significantly reducing their demand for further space because the "labor force growth rate is slowing down" and "the shift out of manufacturing into services is nearly complete. Further shifts will create very little net new demand." In addition, continued innovation in what he terms

"thoughtware", that is, development of new applications for existing technology, will begin to reduce labor intensive office operations, particulary among major office users like financial services and insurance companies. High-tech employment will also be affected, he believes, as the industry automates itself and concentrates on "thoughtware". The sudden problems and layoffs experienced by Massachusetts computer hardward manufacturers is a sign of this change, and is indicative of the rapid changes that may occur in the future. Therefore, Birch says that "the high tech industry will create no more than 4 or 5 percent of the new jobs that we will need in this decade." ("Emerging Business Trends Affecting Future Real Estate Investment", Speech by David L. Birch at the M.I.T. Center for Real Estate Development's 1985 Spring Meeting, Houston, Texas, April 24, 1985.)

The New England Economic Project, a non-profit association of New England businesses, state governments, and educational institutions, issues the results of the product of their joint economic analyses through the Federal Home Loan Bank Board office based in Boston. Their review of the economic performance of the New England states and projection for the next few years, which is based on the national outlook of Data Resources, Inc., an econometric forecasting service, identifies 1984 as a year of spectacular growth, but echo's the labor supply constraint identified by Wheaton, Torto and Birch. They expect "more moderate growth in the region in 1985 and 1986...(i)n the coming years, continued expansion will be more difficult because of the already-tight labor market." ("First District Perspectives",

Federal Home Loan Bank of Boston, February 1985, p.1)

SUMMARY AND CONCLUSIONS

The tremendous performance of the Boston economy in 1984, drawing on the combined factors of a resurgent national economy following a deep recession and a growing service and export-based workforce, produced an employment gain of 18,000 jobs, twice the annual average gain in the 1976-1984 period. Future job growth will probably be limited by a labor shortage which is evident in record low unemployment rates and demographic trends, as well as emerging trends pointing to less labor intensive operations among office users. Still, the city remains well positioned to continue its record of relative economic prosperity, and should have opportunities for the more limited numbers of job seeking college graduates. Therefore, the growth factors that contributed to the great surge in demand for housing throughout the city, and particularly in Back Bay/Beacon Hill, will likely abate somewhat over the next few years.

It should be pointed out that the city's recent approval of several new office building developments for downtown and Back Bay will provide ample room for new growth to occur, keeping office rents from accelerating once again, and therefore averting an exodus of jobs to the suburbs. Other factors in companies' locational choices include worker access to the workplace, a factor which benefits the inner-city neighborhoods but is problematic for a city with increasing traffic problems. A crucial issue, therefore, is housing availability for the labor force, a factor that is a function of both production and

affordability of new housing, which are addressed in the following sections.

(3) HOUSING INVENTORY

We identified earlier, in the analysis of demographic trends in the city, that despite the population drop in the 1970's, the number of households actually increased as a result of a drop in the average number of persons per household. During the decade, 28,000 dwelling units were added (mostly public assisted), but only 9,000 net new dwellings were added after accounting for arson, demolition and renovations of existing units. A summary of 1980 Census data (Table: Selected Housing Data for Boston, the Central District and Back Bay-Beacon Hill, "Diversity and Change in Boston's Neighborhoods", Margaret C. O'Brien, BRA, September 1984) indicates that in 1980 22,850 dwelling units were vacant citywide, including 5,000 boarded up units, for an overall vacancy rate of 9.0%. The Back Bay/Beacon Hill vacancy rate was also 9.0%, with 1,650 vacant units.

The trend toward smaller households continued into the 1980's according to the BRA and, combined with an actual increase in population, created greater demand for housing, both rental and owner-occupied, throughout the city. Available information indicates that the demand for housing has been met through a combination of decreasing vacancy rates and development of new dwelling units, but as demand rose suddenly and sharply, the supply failed to keep up which resulted in rapidly escalating home values and rental rates. Between 1980 and 1984, approximately 8,425 dwelling units were built, including new

construction, rehab, and conversion, but only a portion of this figure represents net new dwelling units. (These and subsequent figures from the tables in: "Boston Development Summary", "Downtown Planning and Housing Strategy Briefing Book", BRA, op. cit. and "The Future of Boston's Poor...", BRA Research Department, June 1985.) During roughly the same period, 1981 through 1984, the vacancy rate in apartments in Boston dropped from 8% to 2.5%, according to the October 1984 survey by the Greater Boston Real Estate Board (GBREB). The pressure on the available housing stock throughout the metropolitan area translated into sharply higher rents and home values. Median home prices, as measured by the GBREB, rose to \$108,600, a 21.5 percent increase from early 1984 to early 1985. (The Boston Globe, May 23, 1985) The average advertised rent rose from \$455 in 1983 to \$528 in 1984, a 16 percent increase. (BRA, op. cit.) This figure may understate the true increase in rents being paid, as the GBREB figures show a decreasing percentage of vacancies in the higher rent units, over \$600/month, and the highest vacancy in the \$300-\$500/month units.

The annual rate of growth in housing values has accelerated since the mid-70's according to BRA figures. ("Tax Constraint and Fiscal Policy: After the Property Tax", J. Avault, Vol. II, ch 3, BRA Research, 1983) For Boston as a whole, values rose 4.4% annually from 1955 to 1975, 8.1% annually from 1975 to 1979, and 13.2% annually from 1979 to 1984. Back Bay/Beacon Hill values have risen faster in each of these periods: 6.7%, 14.7% and 19.1% respectively. The period from 1982 to 1984 was the period of most rapid increases in Back Bay/Beacon Hill, averaging 35.4%.

ANALYSIS: THE SUPPLY/DEMAND BALANCE

An increasing demand for housing in the last few years, combined with limited net new additions to the housing stock, has contributed to the rapid inflation of home values and rents in the Boston area, and has resulted in "a severe housing crisis". (BRA, "Downtown Planning and Housing Strategy...", op. cit.) Future appreciation will be a function of the balance between additions to the supply and the level of demand for dwellings. We have already identified a number of demographic and economic factors that point to a potential slackening of demand in the next few years. As for the supply of new dwelling units, market forces have led to a burst of new housing development according to figures compiled by the BRA ("... Prospects for the Future; The Outlook for Demand and Supply of Office Space, Hotel Rooms and Housing", BRA, Prepared for the Harborpark Fan Piers Advisory Committee, March 29, 1985): approximately 4,600 dwelling units are being built, rehabbed or converted in 1985, compared to 1,800 in 1984 and 2,400 in 1983. Over 7,500 additional dwelling units, representing housing developments slated for completion from 1986-1989, are in varying stages of review by the BRA.

The likely impact of these developments upon the market for condominiums in Back Bay/Beacon Hill is difficult to pinpoint. As many as 4,500 of the new units will be market rate condominiums in the neighborhoods nearest the downtown financial districts however, including Charlestown, Fort Point Channel, the Waterfront, North End, and South End. The limited land and controls imposed on construction in the historic neighborhoods

limits the potential for significant increases in new dwelling units in Back Bay/Beacon Hill: the only significant new additions currently planned in the immediate area include 90 luxury condominiums at the Arlington/Hadassah development, 36 condominiums in the Prince School at 201 Newbury Street, and approximately 400 market rate units at the Prudential Center. The next section of the market analysis chapter focuses on particular market segments and user profiles, and draws specific conclusions about the competition in the condominium marketplace. The important point to consider here is that there is a significant amount of new market rate housing underway and being planned in the city of Boston, much of it located in neighborhoods adjacent to the downtown business districts.

ANALYSIS: CONDOMINIUMS IN BOSTON

It will be instructive to review the history and inventory of condominiums in the city and Back Bay/Beacon Hill in particular, which have been significant factors in the housing equation during the recent period of housing shortages. Though most of the condominiums in Boston to date do not represent net additions to the housing stock, since they are mostly conversions from existing rental apartments, a summary of their absorption history is useful for estimating the potential demand for future condominium development.

From 1969, the first year for condominiums in Boston according to the City of Boston Assessing Department, to 1975, 1,128 out of 1,568 condominium units in the city were located in Back Bay/Beacon Hill, or 72 percent of the total. (These and

following figures from: "Condominium Development in Boston; by Year, by Neighborhood, through June 30, 1983", Jeffrey P. Brown, et.al., BRA, August 1984. Additional figures for July through December 1983 provided by Jeffrey P. Brown.) As of the end of 1983, 4,266 out of 14,370 units citywide were located in Back Bay/Beacon Hill, or 30 percent of the total. By this time, condominiums represented roughly 5.5 percent of the city's housing stock.

Though Back Bay/Beacon Hill dominated the condominium market in the 1970's, Allston/Brighton, Central, Fenway/Kenmore, and the South End have become the focus of an increasing share of the market in the 1980's. The 3,379 units added in 1981 represented the peak for the city, though Back Bay/Beacon Hill had its peak of 714 units in 1979. Condominium development slowed somewhat in 1982 and 1983, to 2,772 and 1,843 units respectively, a decline attributed by the BRA to the recession and high interest rates. Interestingly, the volume of new units recorded in Back Bay/Beacon Hill increased in 1982 to a near record 642 units, but then slowed to 211 in 1983, the lowest since 1977.

A more specific analysis of Back Bay/Beacon Hill condominium values is contained in a subsequent market analysis section, based on actual sales data from transactions over the last 30 months.

CONCLUSIONS

The trends in condominium development identified here reinforce the demographic trends described above that showed a surge in demand for smaller, conveniently located housing units

by younger one and two person households. These young, relatively affluent buyers created a demand for housing that has increasingly spilled over into other nearby neighborhoods as the limited supply of dwellings in Back Bay/Beacon Hill drove prices higher and higher. The near term situation is difficult to predict, however, as demographic and economic trends are likely to relieve some of the demand pressure on the market, while simultaneously, a record level of new housing development is in the works for completion by the end of the decade. The BRA's estimated requirement of 3,500 to 5,000 net new dwelling units per year through the end of the decade (BRA, "The Future of ...", op.cit.), an increase over the 2,600 per year during the 1980-1985 period, is based on the range of factors previously discussed. A major assumption, however, is continued strong employment growth and, as we have described, such growth is not assured. The level of housing development currently underway may or may not adequately fulfill the true needs of the city, and if the BRA is correct there would appear to be a great need for additional housing. Given the tightness of the market currently for both rental and owner-occupied housing, the city may be able to absorb a certain amount of new housing, without dimunition of values or rents, through a return to what is normally considered a "healthy" vacancy rate of around 5%.

A more specific concern is the supply and demand of new market rate condominiums, many of which will be located in neighborhoods in or near the downtown. During the last two and half years, prices have increased tremendously in the Back Bay/Beacon Hill, as well as other downtown neighborhoods, due in

part, no doubt, to the limited supply of market rate units. The combination of a leveling of demand and the concentration of new housing construction toward the high end of the market is likely to slow the rise in housing values in these neighborhoods, without relieving the pressure in other segments of the market.

(4) AFFORDABILITY

Intuitively, it seems that, to the extent that personal income is rising relatively slowly, rapid increases in housing values translates into an increasingly limited number of buyers who can afford the costs of buying in the inner-city, and the increasing difficulty in attracting new workers from other labor markets. After a year in which housing prices and rents have been rising at an average of 25% in the Boston Metropolitan area, while personal income growth statewide was estimated to be approximately 8% ("First District Perspectives", op.cit., p.5), it is reasonable to ask whether such increases are sustainable. Given the likely slowing of the growth of personal income in 1985 and 1986, to the 3-4% range ("First District Perspectives", op. cit., p.5), is the question of affordability relevant to the question of predicting housing demand, and in particular, demand for condominiums in the Back Bay/Beacon Hill neighborhoods?

According to Allan Groves, a Federal Home Loan Bank of Boston researcher, the question of affordability is as important as it is difficult to measure. (Telephone interview, July 15, 1985.) Many studies looking at the relationship between the personal income statistics and median home prices have come to the conclusion that the typical homebuyer cannot afford the typical

home. The generalization built into such studies limits their relevance to the reality that is apparent in the marketplace, that being a continued high volume of homebuying, and rapidly increasing prices. Certainly, he believes, over the long term, lower growth in personal income relative to home prices would choke off demand. The short run is far more difficult to predict with price trends in a specific neighborhood likely to be uniquely related to the makeup of the households in the area, which may be shifting, and its desirability to homebuyers relative to currently available alternative neighborhoods.

The scope of this study does not allow for a detailed affordability analysis. Rather, it is limited to a description of the factors we believe are important to such an analysis, and their likely applicability in the specific case being studied. These factors include the income and composition of homebuying households, the costs of financing, and recent and expected inflation.

It would not be appropriate to look at the median income statistics for the city and compare them to the income requirements for someone interested in buying in Back Bay/Beacon Hill. It may be useful, however, to estimate the income levels necessary to afford housing in the neighborhood and try to draw some conclusions as to who might be able to afford such prices in the future. In particular, it would be helpful to compare the income requirements with the likely income levels of the new jobs being created in the city. Unfortunately, recent income and occupational data is unavailable and only a sense of what the

true picture might be is possible to achieve. For example, by looking at the income and labor force data from the 1980 census, the most recent available, we know that Back Bay/Beacon Hill has had a high concentration of residents working in high income occupations, including managerial and professional jobs, and that the median household income is very high relative to other neighborhoods. We also know that there is a high concentration of one and two person households. We can assume, therefore, that the high volume of condominium sales and the rapidly increasing prices experienced since 1980 indicate a continuation, if not further concentration, of high income buyers in Back Bay/Beacon Hill replacing relatively low income renters. Unfortunately, there is no readily available means of determining the income levels of these buyers.

A major portion of the affordability equation involves the relationship of borrowing costs to income. The recent downward trend in mortgage interest rates has made housing ownership more affordable to a widening segment of the population, and is likely to be a major factor fueling the recent surge in demand. Coming off a period of record high interest rates, as Mr. Groves pointed out, some "pent-up" demand was released and it is impossible to estimate precisely when this aspect of the demand will be played out. And, given the increasing volatility of interest rates in the past several years, it is difficult to predict how much longer this period of relatively low rates will persist. A measure of the impact that a change in interest rates would have upon the amount of loan a buyer may qualify for is a useful tool for predicting the impact of a change in the demand for housing.

The following tables estimate the income level required for purchase of two typical condominiums under varying price and financing assumptions:

ASSUMPTIONS:

- A. Mortgage amount is 80 percent of purchase price.
- B. Monthly payment is based on amortization over 25 years.
- C. Income requirement is based on a 28 percent ratio of annual debt service to gross income.
- Table 1: Income required to purchase a 750 SF, 1 bedroom condominium:

INTEREST RATE

		11%	12%	13%	14%	15%	16%
	75,000	25,203	27,083	29,001	30,954	32,936	34,943
Ρ	100,000	33,604	36,111	38,669	41,272	43,914	46,590
R	125,000	42,005	45,138	48,336	51,590	54,893	58,238
I	150,000	50,406	54,166	58,003	61,908	65,871	69,886
Ċ	175,000	58,807	63,193	67,670	72,226	76,850	81,533
E	200,000	67,208	72,221	77,337	82,544	87,828	93,181
	225,000	75,609	81,249	87,004	92,862	98,807	104,829

Table 2: Income required to purchase a 1000 SF, 2 Bedroom condominium:

INTEREST RATE

		11%	12%	13%	14%	15%	16%
	100,000	33,604	36,111	38,669	41,272	43,914	46,590
Ρ	133,333	44,805	48,147	51,558	55,029	58,552	62,120
R	166,666	56,006	60,184	64,447	68,786	73,190	77,650
I	200,000	67,208	72,221	77,337	82,544	87,828	93,181
С	233,332	78,409	84,257	90,226	96,300	102,466	108,710
E	266,665	89,610	96,294	103,116	110,057	117,104	124,240
	300,000	100,812	108,332	116,006	123,815	131,743	139,771

The tables indicate that a one percent increase in mortgage

interest rates will increase the income requirement by 6 to 8 percent. It can be seen that a rise in rates from the current 12 to 13 percent level to a 15 to 16 percent level would increase the income requirements by roughly 20 percent across the board.

It is generally assumed that an increase in interest rates and, as shown above, the resulting increase in income requirements, will choke off housing sales. More important is the "real" rate of interest, that being the difference between the nominal rate paid on the loan and the inflation rate. We noted above that in 1982 and 1983, condominium sales in Boston declined from their peak in 1981, and the BRA indicated the slowdown resulted from the high interest rates that occurred during this period. Indeed, real interest rates reached unprecedented levels in 1982 and 1983, at 8.11 and 10.15 percent respectively, following years of very low or even negative real rates. (See attached exhibit 6, "Table 7, Annual Average Mortgage Interest Rates", "Condominium Development in Boston...", op. cit., p.22.) In spite of this situation, Back Bay/Beacon Hill condominium activity continued strong in 1982 with 642 units, before falling off dramatically in 1983 to just over 211 units.

ANALYSIS AND CONCLUSIONS

Assessing the impact of potential interest rate changes and trends in personal income growth upon the affordability of Back Bay/Beacon Hill condominiums is a complex task made more difficult by a lack of current information. From the available information, however, a number of observations can be made. First of all, the impact of the real rate of interest on Back

Bay/Beacon Hill seems unclear. We would expect, however, that the higher the income level, the less susceptible buyers may be to interest rate increases. In addition, higher income buyers typically have greater savings capability and/or value in existing homes to apply to a down payment. Therefore, high income buyers are less likely to be impacted by interest rates.

Secondly, the corollary to the expectation that lower interest rates increase demand is the notion that the lower costs quickly become factored in by sellers in the form of higher prices. Some portion of the recent price inflation, therefore, may be the result of lower interest rates. It is interesting, however, that the continued strong demand for homes and condominiums has persisted throughout the metropolitan area despite still high real rates of interest: the lower nominal rates since the peak in 1981-2 have been offset by a greater drop in the inflation rate. Therefore, the impact of high real interest rates seems to have been overcome by other demand factors, and the impact is perhaps least important for high income neighborhoods like Back Bay/Beacon Hill. One of these factors, in addition to the fundamental supply/demand imbalance, may simply have been the expectation of still higher prices, an expectation that may be great enough to push buyers to overlook the "real rate" of interest being paid: what is the difference so long as the increase in value is greater than the cost of the higher interest payments?

Thirdly, one can infer from the tables above that the the surge in condominium prices in Back Bay/Beacon Hill, from the \$100/SF to \$200/SF range or more, has placed the cost of a

typical apartment in the area beyond the price level one would expect to be achieveable for most young, first time homebuyers, unless they have two substantial incomes and a sizable down payment. As asking prices continue to rise above \$200/SF at a rate in excess of the likely rise in income levels, the question of affordability, and an examination of housing options for the groups that have made up the bulk of the demand in the area, must be increasingly important.

(5) GOVERNMENT POLICIES

Government policies, on federal, state and local levels may impact housing supply and demand, and therefore housing values, sometimes by design and sometimes quite by accident. Given the large number of governmental policies relating to housing, this analysis is not intended to be an exhaustive review, but rather, it is intended to highlight a few which have recently been, or appear to be soon, significant factors affecting housing in Boston.

(A) FEDERAL POLICIES

On the federal level, the Reagan administration's recent proposals for tax reform, if implemented, are expected by many observers to be generally detrimental to real estate values. The first issue is whether or not we should be concerned with a set of propoals that may or may not be passed soon, if at all. The answer, we believe, is that some changes, including a lowering of marginal tax brackets, are almost certain to occur and, even if the resulting impact is not exactly clear, the uncertainty is likely to dampen or distort market activity, adding a degree of

risk totally beyond our control.

Secondly, we should focus more specifically on the likely impact of the proposals on primary residence, owneroccupied housing. Two proposed changes that would impact homeowners are: (1) the likely reduction in marginal tax rates, that now range to a high of 50%, to a modified "flat" tax that includes three tiers and a maximum 35% tax rate; and (2) elimination of tax deductions for real estate taxes. The combination of these factors would guarantee a higher after tax cost of homeownership, as the amount and the value of the allowable deductions would be reduced.

For example, assuming a \$100,000 home, with annual interest payments of \$9,000 and taxes of \$2,500, under current law the after tax cost of these expenses, for a taxpayer in the 50% tax bracket, is half their sum, or \$5,750. Under the new law, the real estate taxes are not deductible, and the tax savings on the interest is only 35% of \$9,000, or \$3,150. The net increase in federal income taxes, and the cost of homeownership, would be \$2,600 per year. Many observers, including lobbyists representing real estate interests, have focused on this arithmetic and have deduced that the \$2,600 annual increase could be capitalized into a decrease in home values of as much as \$26,000, or 26%.

For a number of reasons, we don't believe the impact will necessarily be so predictably negative, though it seems clear that the changes are designed to reduce the subsidy of homeownership that has long been a feature of the tax system, and are likely to have some negative impact on home values. The reason the impact is likely to be unpredictable is that these changes will likely be among many others with varying impacts on

the homebuying market. For example, the reduction in tax rates may reduce the total income tax bill for many taxpayers in an amount that more than compensates for the negative impact outlined above. For high income taxpayers with many other deductions taken away by other changes in the tax laws, the lower tax rates may not be enough to offset, with the result being higher net tax bills. The question is whether the market as a whole will translate the clearly negative isolated impact on homeownership into a reduction in the perceived value of homes.

Among the tax law changes being discussed are an extension in depreciation periods for real property, and a revision in the "at risk" rules which currently limit the financial exposure of limited partners in real estate syndications. Though owneroccupied housing will not be directly affected, these changes will almost certainly have an impact on rental housing. Most importantly, the creation of new rental units may be hindered as most new rental projects have been supported by syndicators in the past. This situation may be beneficial to existing housing, both owner-occupied and rental, as it may limit additions to the supply.

(B) STATE POLICIES

Property tax reform was one of the most significant political issues of the early 1980's in Massachusetts, culminating with the passing of Proposition 2 1/2. Now a state law, Proposition 2 1/2 limits cities and towns to overall property tax rates of 2.5% of value, and limits annual increases in taxes to 2.5% as well. In addition, "classification and equalization" of property in the

City of Boston has served to place a relatively larger tax burden on commercial property, to the benefit of residential property. As a result, between Fiscal 1981, the year prior to reform, and Fiscal 1984, total real estate taxes paid by condominium owners in Ward 5, which includes the Back Bay/Beacon Hill neighborhood, have actually declined by 52%. This has occurred in spite of significant increases in both the quantity and value of the condominium inventory. (See attached exhibit 7, BRA document, "Boston City and Downtown Property Taxes", The Effects of Proposition 2 1/2 and Classification/Equalization, FY 1981-1984.)

The reduced property taxes on condominiums reduces the cost of ownership and, theoretically, the savings are capitalized into higher property values. For example, a \$100,000 condominium owner who paid \$5,000/year prior to reform but pays 50% less, or only \$2,500/year now, has the benefit of an additional \$2,500/year. Such savings, if capitalized, should be worth approximately \$25,000, resulting in a 25% increase in the property value. The implications of this are twofold. For one, it implies that a significant portion of the increase in property values experienced in and around Boston may have been the result of tax reform. Secondly, if this is true, now that tax reform has been implemented and values have risen in response, further increases will be based solely on supply and demand factors.

(C) LOCAL POLICIES

Since his inauguration, Mayor Flynn's administration has made the creation of new housing a major focus of his development policy for Boston. This has been expressed in the

"linkage" requirements that are imposed on all new downtown commercial office developments, which provide funds for neighborhood housing and improvements, as well as a new emphasis on promoting housing development in the central district itself. A "preliminary draft" of the the city's new downtown housing policy obtained from the BRA research staff outlines the city's likely approach to new downtown housing development, ("A New Policy for Boston", Edith Netter, Peter Dreier, and Jacob Schaffer, May 31, 1985). Based on the perception that "Boston faces a critical housing shortage", and the "prospect of even greater housing pressures in the immediate future, triggered by significant increases in total population and households", the new policy, simply stated, is to make "serious efforts...to expand the city's housing supply".

The thrust of the policy is to encourage the development of new housing in "Central Boston", including the West End, Bay Village, Chinatown, and the South Cove, through the use of floor area bonuses for housing, rezoning, and promotion of mixed-use projects that include a housing component. An emphasis on providing units for mixed-incomes and "special population groups", is also mentioned.

As we described previously, a significant increase in new housing developments is already planned for the neighborhoods near downtown, with many of the projects located along the waterfront and aimed at the high-priced luxury marketplace. The goal of increasing the stock of affordable housing in the downtown neighborhoods is commendable but high land and

construction costs downtown will make it difficult to induce private development of these units. Most likely, new projects will have to consist of primarily luxury housing with a mixedincome component. Therefore, to the extent the city is successful in promoting this new policy, there is likely to be a further increase in market rate housing which would be in competition for many of the buyers that want to be in the city, but who traditionally had few alternatives to the nearby Boston neighborhoods including Back Bay/Beacon Hill.

(6) CONCLUSIONS

The Boston housing market, Back Bay/Beacon Hill included, has experienced dramatic changes in recent years, the most tangible and publicized evidence being the rapid increases in prices and rents, and a reduction in vacancy rates. The factors that have been responsible for this situation are likely to include those which we have discussed: increases in demand through a combination of population, household and employment growth, limited increases in supply, and the complicated impacts of financing costs and government policies.

Determining which factors were most significant, or which neighborhoods were affected most by certain factors, is a difficult task, given the interrelationships among factors, even with the benefit of hindsight and historical data. The task of predicting the likely future supply and demand balance is even more difficult, as we have seen from past attempts. Therefore, we draw our conclusions based on some limited understanding of how the current situation has come about, and an intuitive feel for

how factors we see emerging will impact the future.

The most basic observation we can make is that a number of the factors which have contributed to the recent surge in demand and property values, particularly job growth, new household formations through smaller household sizes, and reduced property taxes, are all likely to be less and less significant in the next few years. In addition, the new tax laws and a relatively large increase in the supply of market rate housing may have a negative impact on property values. Our conclusion is that future increases in property values are likely to be slower than the recent past. The obvious question is, how much slower, and are we potentially headed for a bust?

We expect that, despite these potential negative factors, the future of Boston is still overwhelmingly positive: the high concentration of jobs in high technology, education, medicine, financial services, and tourism, provides a very strong base which, barring a major national economic catastrophe, makes it highly unlikely that we are headed for a serious downturn. In addition, as Mr. Groves of the Federal Home Loan Bank Board indicated (Interview, op. cit.), the current expansion has not shown signs of slowing dramatically, and there is no telling how much farther "momentum" may carry the market: he predicted as much as another year to eighteen months of rapid housing price inflation.

Therefore, our major concern ought not be one of overall market imbalance, but rather be focused on specific market segments and neighborhoods. In the next section of the market analysis, we examine the Back Bay/Beacon Hill market in more

detail, with an eye toward identifying specific opportunities and risks that may be entailed by a developer attempting to convert most of the Emerson College property to housing.

(C) IDENTIFICATION OF SPECIFIC MARKET SEGMENTS AND COMPETITION

(1) USER PROFILES

The Beacon Hill/Back Bay neighborhoods are frequently a study in contrasts within their own boundaries. Young lower-end buyers, seeking good location and who are not particularly amenity conscious, shop the same block as older, higher-end buyers looking to replace high-amenity suburban living with inner-city space. Although it is predominantly a middle to late thirties age group, the population does range from single professionals in their twenties to empty nesters in their forties and fifties.

They all share a common interest in living in the city for proximity to their jobs and ready access to the wide variety of activities and pursuits that the city offers. The young, single professionals tend to buy studio apartments and one bedroom apartments; the studios sometimes have loft space to accomodate a mattress for sleeping. Kitchen space and a single bath are usually ingeniously configured into the corners of the relatively small living space (300-400 s.f.). Usually there is no deeded or private parking resulting in heavy reliance on neighborhood sticker parking. In contrast, the empty nesters place a high priority on the amenities that they have grown accustomed to

having, but which are frequently hard to deliver in the city, notwithstanding a buyer's willingness to pay. These individuals want elevators, multiple bathrooms, air conditioning, at least one garage space, larger units than are typical, and access to services. For example, units at 22-24 Commonwealth Avenue currently being marketed successfully at up to \$275 per square foot offer most of these amenities but can only provide single outside spaces for parking. Although most of these units are sold, the brokers reported evidence of buyer irritation at a perceived shortfall in amenities at this high price.

As might be expected many of the Beacon Hill/Back Bay condominiums are purchased by young professional couples. An increasing number of these people have young children having been attracted to the neighborhood by the open space park at the northwest corner of Clarendon and Marlborough Streets. These are the predominant one and two bedroom buyers who are amenable to a walk-up unit and a single outside parking space or street parking. A similar group of young professionals, unrelated singles, have a moderate presence in these two neighborhoods as coinvestors in a shared condominium unit.

Even within its boundaries, this is a very location conscious marketplace with the highest prices typically being paid east of Dartmouth Street. Prices throughout the area, however, are affected by adjacent and nearby property uses. For example, condominium units in a building located next to a building used as a college dormitory or fraternity house will be down-valued by knowledgeable buyers. The same logic applies to condominiums units next to or nearby buildings that are committed to

institutional use and is further exacerbated by the intensity of people and vehicular traffic generated by that use.

Private parking spaces, which are always a tight commodity in Boston, currently range from 15 to 45 thousand dollars, and this situation is expected to worsen as current high levels of city traffic become even more congested when the New England Life Tower and the Prudential Center expansion projects in the Back Bay come on line. Parking spaces are almost an absolute necessity to command prices over \$300 per square foot.

Condominium prices in the Back Bay/Beacon Hill neighborhoods in the past two and a half years have ranged widely. The absolute value of the price escalation over this period is approaching \$100 per square foot or, stated differently, about double the early 1983 selling prices. Contemplation of the current purchase of such a large number of properties for conversion and sale as condominiums in the 1988-90 marketplace prompts some serious analysis of the factors that affect prices.

The first question to address is the quality of current pricing levels. Are these real prices reflecting a rational balance between supply and demand or are there other factors driving prices up. Recent interviews with Kevin Ahearn and Julie Barron of Otis and Ahearn, a successful and knowledgeable Boston brokerage firm, indicate that the pricing to date reflects rational market behavior for the following reasons:

 Very little of the condominium activity is speculative in nature in the Back Bay/Beacon Hill area. Observations place this type of

buying at less than 10 percent, too little to artificially fuel high and rising prices.

- There is no evidence of seller financing which, if present in a substantive way, produces upward pressure on prices.
- 3. The condominium buyers are economically qualififed. The Boston banks are imposing strict financing requirements such as an annual income level equal to at least half of the purchase price and a debt limitation (total) of no more than 36 percent of income. Easy money is not a contributor, therefore, to this pricing spiral.
- On the supply side of the marketplace 4. equation, there is clearly an inventory problem and it is permanent in nature. The Back Bay and Beacon Hill have National Historic Area designation as entire neighborhoods. The requirement for structural preservation imposed by this designation prevents significant addition to these buildings as well as demolition for the subsequent construction of higher rise properties. The virtual absence of additional land seals off the only remaining possibility for future housing expansion.

These observations by active brokers offer some assurance that current prices stand on rational economic footing. Our next concern is to look for assurance that prices will either hold at current levels or proceed upward at some anticipated rate. As our analysis of demographic and employment trends, and government policies suggested, there is reason to expect some slowdown in future demand induced pressure on prices.

(2) MARKET HISTORY: PRICE STRUCTURE AND COMPARABLES

In order to gain further insight into the Back Bay/Beacon Hill condominium marketplace, we acquired and analyzed a database of condominium transactions in the area for the past 30 months, called Condex. (Compiled monthly by Christopher Pantaleoni of Condex, Inc., and published annually in association with County Comps, Cambridge, MA.) The transactions in the database are compiled at the county Register of Deeds, and additional information about each dwelling is gathered from the Master Deed. For each transaction, therefore, the database lists: street name and address, price, mortgage amount and name of mortgagor, date of sale, area in square feet, floor location in the building, percentage of common area, number of bedrooms and bathrooms, deeded parking spaces, if any, and other special features listed in the deed, like private decks, if any.

We had approximately 1400 transactions inputted into a computer database, limiting the data to sales on Beacon Street, Commonwealth Ave., and Marlborough Street in Back Bay, and Brimmer and Chestnut Streets in Lower Beacon Hill, which are the primary residential streets in the subject area. We did not
include transactions from minor streets, like the cross streets in Back Bay which have relatively few transactions, in order to simplify and speed the analysis. We also did not include the 1983 transactions on Commonwealth and Marlboro, between Dartmouth St. and Massachusetts Ave., though we do have 1984 and 1985 transactions for these areas. We believe the sample is quite good, representing over 90% of 1984 and 1985 transactions, and over 75% of 1983 transactions. The database was thoroughly checked following entry to the computer, and obvious errors were corrected after reference back to the Condex reports. Transactions that were missing key data, like the size of the unit, were rare, and were deleted.

The database was analyzed in two ways. First, using Lotus database functions on a microcomputer, the data was sorted according to key variables in order to generate three tables which highlight a number of trends in the transactions. Secondly, using a statistical software package on the Sloan School mainframe computer, a multiple regression analysis was programmed and performed by Professor William Wheaton. The results of the regression provide the capability to estimate the value the market has placed on a number of location and property characteristics and, therefore, to predict sales prices for condominiums with various combinations of characteristics. These analyses are described in greater detail below.

(A) DATABASE ANALYSIS:

The first table summarizes the transactions according to the type of unit, and breaks the data down by six month period:

	83/1	8	83/2	8	84/1	8	84/2	8	85/1
STUDIOS:									
# SALES	26		40		39		52		35
AVG. \$/SF	\$117	5%	\$123	88	\$133	20%	\$159	88	\$172
AVG. SIZE	658		609		462		528		519
1 BDRMS:									
# SALES	129		125		148		158		96
AVG. \$/SF	\$9 8	12%	\$109	198	\$130	16%	Ş151	23%	Ş186
AVG. SIZE	632		670		681		707		662
2 BDRMS:									
# SALES	116		83		119		102		77
AVG. \$/SF	\$108	16%	\$125	20%	\$150	78	\$161	10%	\$177
AVG. SIZE	1041		1205		1159		1158		1071
3+ BDRMS:									
# SALES	· 8		14		24		23		23
AVG. \$/SF	\$96	34%	\$128	35%	\$173	-18	\$172	13%	\$194
AVG. SIZE	1951		2136		1908		1756		1809
TOTALS:									
# SALES	279		262		330		335		231
AVG. \$/SF	\$104	13%	\$118	20%	\$141	11%	\$157	16%	\$182
AVG. SIZE	842		909		917		889		891

TABLE 1: SEMI-ANNUAL CONDOMINIUM SALES, BY UNIT TYPE

From this we can see dramatic evidence of the rapid inflation in condominium values, and it seems that the rise in prices has been both fairly steady throughout the period and across unit types. Overall, the average price paid rose about 36% from early 1983 to early 1984, and just under 30% over the last year. One bedroom and three bedroom units, which were the lowest priced units in 1983, have appreciated most rapidly and are now slightly more expensive, on a square foot basis, than studios and two bedrooms. A common assumption, that on average the larger the unit the lower the price per square foot, is not apparently true in this market. The difference in prices, however, does not seem

significant enough to indicate that one type of unit is underserved, in the marketplace.

As expected, the greatest volume of sales is in the one and two bedroom categories, with 46% and 35% respectively, over the 30 month period. Studios accounted for 13% and three bedroom and larger units only 6%. The volume distribution has been fairly consistent over time, and during the most recent six months the distribution was very similar: 42% one bedrooms, 33% two bedrooms, 15% studios, and 10% three bedrooms. This information indicates that there have been no dramatic changes recently in the types of units desired in the marketplace, and it will be useful for determining a desirable mix of unit types for the Emerson properties.

The average size of units has varied some over time, but there is not a clear trend toward smaller apartments overall. Somewhat surprising is the average size of two bedroom units, which seems high compared to what one expects in new construction. It is important to consider the sizes that the market will accept, because many of the older Back Bay/Beacon Hill buildings that were built for an earlier age have larger rooms than are common today, making it difficult sometimes to renovate the buildings efficiently.

The second table summarizes the sales according to street address, as well as by six month period:

	83/1	€	83/2	æ	84/1	8	84/2	8	85/1
BEACON:									
# SALES	165		170		167		137		108
AVG. \$/SF	\$99	19%	\$118	26%	\$149	1%	\$151	27%	\$191
AVG. SIZE	762		887		938		845		807
COMM AVE:									
# SALES	44		95		85		131		68
AVG. \$/SF	\$108	5%	\$113	18%	\$133	13%	\$150	88	\$162
AVG. SIZE	872		932		991		945		9 38
MARLBORO:									
# SALES	18		29		41		67		44
AVG. \$/SF	\$112	48	\$116	19%	\$138	16%	\$161	18%	\$190
AVG. SIZE	977		1104		810		916		917
LOW BEAC HIL	L:								
# SALES	20				10				3
AVG. \$/SF	\$146			30%	190			18%	\$224
AVG. SIZE	1085				1060				1195

TABLE 2: SEMI-ANNUAL CONDOMINIUM SALES, BY STREET

The results in this table show some significant variation in prices among the various locations in Back Bay/Beacon Hill. Commonwealth Avenue prices, which were comparable to Beacon and Marlborough Street through 1984, appear to have lagged behind so far in 1985, despite an 8% price increase over late 1984. Brimmer and Chestnut Streets ("Low Beac Hill"), show the highest prices, and while the small number of recent transactions makes it dangerous to draw any strong conclusions, they would appear to be the most desirable locations. Another observation that can be made is that units tend to be largest in lower Beacon Hill, and that Beacon Street generally has smaller units than any other location.

The third table presents the same data organized according to street address and price range, also by six month period:

	<	\$100/SF	\$100-	\$100-\$200/SF		\$200-\$250/SF		> \$250/SF	
	#	8	# 	8	+ 	8	ŧ		
BEACON:									
1983/1	91	55	68	41	6	4	0	0	
1983/2	44	26	122	72	2	ī	2	1	
1984/1	21	13	122	73	20	12	4	2	
1984/2	5	4	115	84	15	11	2	2	
1985/1	1	1	63	58	38	35	6	6	
COMM AVE:									
1983/1	19	43	22	50	1	2	2	5	
1983/2	27	28	64	67	0	0	4	4	
1984/1	10	12	70	82	0	0	5	6	
1984/2	5	4	116	89	9	7	1	1	
1985/1	2	3	52	76	14	21	0	0	
MARLBORO:									
1983/1	4	22	14	78	0	0	0	0	
1983/2	6	21	23	79	Ō	0	0	0	
1984/1	3	7	37	90	1	2	0	0	
1984/2	4	6	53	79	9	13	1	1	
1985/1	1	2	25	57	17	39	1	2	
LOW BEAC H	[LL:								
1983/1+2	0	0	19	95	1	5	0	0	
1984/1+2	0	0	6	60	4	40	0	0	
1985/1	0	0	1	33	1	33	1	33	
TOTALS:								_	
1983/1+2	191	35	332	61	10	2	8	2	
1984/1+2	48	8	519	81	58	9	13	2	
1985/1	4	2	141	63	70	31	8	4	

TABLE 3: SEMI-ANNUAL CONDOMINIUM SALES, BY STREET AND PRICE RANGE

The results in this table are particularly useful for understanding the range as well as the trend in prices in the area. As expected, the area as a whole, and each location, shows an increasing percentage of higher priced units over time. The percentage of sales at a price under \$100/SF has declined dramatically, mirroring the trend in sales occurring at over \$200/SF. A wide range in sales prices is still apparent in 1985,

from less than \$100/SF to over \$300/SF, though 94% fall between \$100/SF and \$250/SF, and the bulk of the market is still less than \$200/SF. Only 4% of the 1985 transactions to date have been over \$250/SF, not significantly higher than the previous two years, which indicates that the highest end of the market has not expanded very rapidly.

Interestingly, Marlborough Street and lower Beacon Hill have consistently had few values at the extremes, perhaps reflecting their lack of diversity in building types compared to the other locations. Commonwealth Avenue exhibits the lowest percentage of sales greater than \$200/SF, while prices on Beacon Street have moved most dramatically from 1983 levels.

CONCLUSIONS

The evidence from recent Back Bay/Beacon Hill condominium transactions confirms the statements widely reported about the rapid escalation in values in the area. Prices have risen faster there than the city as a whole, and they have risen in all locations and among all dwelling types.

Most important, for the purpose of this study, is the discovery of the fairly thin volume of transactions in the higher price ranges. It is clear that the Emerson properties, if currently available for conversion, would probably represent as much as six months supply, assuming no competition, and that it would be difficult to sell more than a handful of units at the \$300/SF level. The difficulty in projecting absorption rates and prices is compounded when one must project two to three years into the future. If the recent price spiral continued unabated, the

average price in 1988 would exceed \$300/SF, a level at which many of the typical buyers would be priced out of the market.

It is important to note that the database includes first time sales, presumably from developers and condominium converters, as well as resales of condominiums previously converted. Therefore, the length of time since the most recent interior renovation is not known. In addition, there is a great deal of variation in the quality of new and renovated construction: some conversions are accomplished following minor, largely aesthetic improvements, while others are virtually total reconstructions.

Since it is likely that a developer converting the Emerson properties would be doing the latter in many of the buildings, the average price per square foot should be somewhat higher than the overall market average, including resales. In order to gain some insight regarding the appropriate price level for the Emerson properties, we have looked at some of the properties that have had the highest prices paid, on a square foot basis. Knowing something about these properties should be helpful in determining whether some or all of the Emerson properties could achieve a similar price level. In addition, we have looked at a few properties which we consider close comparables to the largest of the Emerson properties as a further indication of the likely price level one might achieve.

We have found that a large number of the highest priced transactions have been concentrated in four properties: 2 Commonwealth Ave. (e.g. the Ritz Condominiums), 180 Beacon Street,

330 Beacon Street, and 490 Beacon Street (e.g. Church Court Condominiums). These properties accounted for 15 out of 18 sales over \$200/SF in 1983, 5 out of 13 sales over \$250/SF in 1984, and 2 out of 8 sales over \$250/SF to date in 1985. (See the Back Bay map for reference.)

When we examine these properties we find that they are unique in several ways which sets them apart from the more typical Beacon Hill/Back Bay condominium offering. The Ritz condominiums is a new, highrise building that is located right on the Boston Public Garden offering attractive views in every direction. Its unit owners have lobby security, full hotel services, and valet parking service to an indoor garage. These condominiums are purchased in an unfinished state which permits each buyer to personalize the interior to his or her own taste. Lastly, there is only one Ritz and we can think of no other name that carries the internationally recognizable identity and prestige of this name.

Both 180 and 330 Beacon Street are relatively new (less than 20 years old), highrise buildings with individual balconies that offer commanding riverviews on their east, north, and west sides and city skyline views on the south side. They were the last and only modern apartment buildings built on Beacon Street prior to the imposition of the historic neighborhood controls that now prohibit further demolition of existing structures. Both buildings have efficient lobby security and passcard parking within their basements.

Church Court Condominiums at 490 Beacon Street is a theme development that was designed and executed by noted architect Graham Gund. This project featured the conversion of

an abandoned church into condominium units while retaining the architecturally significant facades and towers of the original structure. This building is essentially all new construction, with elaborate architectural detail and finish work. It was an attempt to create a high priced market in an area of generally lesser quality. For this reason it took an inordinately long time to build and sell out and the interest carry forced a breakeven result, at best, according to sources familiar with the project.

The uniqueness of these properties causes us to conclude that they are not comparables for the bulk of the Emerson College buildings, with 150 Beacon Street being the notable exception.

There are three large properties worth examining as potential comparables for the two largest Emerson buildings, 534 and 535 Beacon Street. The size and location of these properties, on the west side of Massachusetts Avenue, makes it important to consider them as serving a potentially different market than the others entirely. The comparables are 400 Commonwealth Avenue (e.g. the Somerset Condominiums), 464-466 Commonwealth Avenue (e.g. the Braemore Condominiums), and 483 Beacon Street (e.g. the Beacon Towers Condominiums), all located in close proximity to the subject properties. (See the Back Bay map for reference.) These properties contain 98, 114 and 85 condominium units respectively. The following table shows the typical range and trend in prices for these properties; the bulk of the early sales were the original prices paid to the converter, with some resales in 1984 and 1985:

	1983	1984	1985
400 COMM AVE:			
# SALES	24	67	15
RANGE	\$100-130/SF	\$120-160/SF	\$150-175/SF
464-66 COMM AV	E :		
# SALES	61	4	2
RANGE	\$90-110/SF	\$120-150/SF	\$145-150/SF
483 BEACON ST:			
# SALES	66	9	6
RANGE	\$60-90/SF	\$110-140/SF	\$150-190/SF

The Somerset Condominiums is a very handsome, stately building. By direct observation, the units are nicely laid out with medium range finishes and are the product of a complete rehabilitation. Garage parking spaces are available for purchase with each unit and range in price from 15 to 20 thousand dollars. The building has an attractive lobby with full time security and adequate reception space for meeting and greeting. It also has a major amenity in the form of a large swimming pool and health club.

The Braemore Condominiums, which bankrupted its developers, is relatively short on amenities. It was finished out by the lender as a basic paint and paper rehab. The units are air conditioned and share a common roof deck. Due to its close proximity to Boston University, many of the units are owned by wealthy parents of students or by investors who rent them to students. It has 3000 square feet of retail space as an amenity of sorts, housing pizza, flower, and comic book shops.

The Beacon Towers Condominiums, formerly the Cambridge apartment hotel has the fewest amenities of these three

properties, but its location is on the more desirable Beacon Street east of Massachusetts Avenue, and does offer some riverviews. It has also benefited, no doubt, from the completion of the Church Court Condominiums directly across the street. The rehab here was of a paint and paper nature and, although it offers a common roof deck, there is no central air conditioning and parking is confined to the neighborhood sticker program.

All three buildings are convenient to several forms of public transportation and the retail shops along Massachusetts Avenue and in Kenmore Square. By virture of their size and location they can reasonably be used as comparables when considering both 534 and 535 Beacon Street. It is interesting to note that, despite its lack of parking and apparently lower quality level, resales for 483 Beacon have kept pace with the Somerset. Still, the prices for units in these two buildings are typically in the mid to upper 100's.

With more time and effort, additional manipulation and study of the database could provide more specific insights by further refining the data by location and unit characteristics. For example, we could examine transactions by quarter, or month, and learn whether there is a seasonal variation in sales, as many brokers claim. We might also look at prices on each side of the streets individually, and by individual block, to get a feel for the value of certain locations.

(B) MULTIPLE REGRESSION ANALYSIS:

The database analysis described above provides many useful insights into the past trends and volume of activity in the

condominium marketplace. It is limited in its analytic and predictive capability, however, as it is not capable of isolating and measuring the impact of specific variables on the potential price of a condominium. For example, although we were able to determine that three bedroom condominiums sold, on average, for a higher price than any other unit type, we can not be sure that the difference is the result of a higher percentage of parking spaces with the larger apartments, or some combination of factors we have not considered.

In an attempt to better understand such relationships in the market, we had the Condex data run through a statistical program that performs multiple regression analysis. (Our 1400 observations were input, and the statistical programming was performed on the Sloan School main frame computer, by William Wheaton; the interpretation of the results is our own, with advice from Professor Wheaton.) A complete discussion of the theory behind multiple regression analysis is beyond the scope of this study. Simply stated, it is a common statistical technique employing information about a number of variables (the "independent variables") for predicting the value of another variable (the "dependent variable"). In this context, the dependent variable is the selling price (or price per square foot), and the independent variables are based on the additional information in the database relating to the date of sale, location, and unit characteristics that influence the selling price. The output from the regression analysis is an equation which expresses the relationship of each independent

variable to the single dependent variable; the relationship is is called the "beta coefficient". As the value of the independent variable is changed, the beta coefficient is used to predict the impact upon the dependent variable.

Most importantly, the beta coefficients for each independent variable predict the impact of a change in that variable only, holding all other variables constant. Therefore, the coefficients can predict the isolated impact on the selling price of an additional bathroom, or a parking space, holding the size, location and type of unit constant.

A problem one runs into using this technique in its simplest form involves the notion, from economic theory, of diminishing marginal utility. As an illustration, consider that people will typically pay for a second bathroom in a two bedroom apartment, but will likely pay far less for each additional one. The goal of the regression equation is to create a model which most clearly reflects systematic relationships that occur in people's behavior, and the programmer strives to develop an equation which will best "fit" the data, and include the most powerfully predictive set of independent variables available. A linear form, which assumes a constant relationship between the dependent and independent variables, is simplest to use and understand but unable to account for diminishing marginal utility. Therefore, the programmer tests various forms of equations and combinations of variables, using a tool called the "R-squared" statistic, in order to measure the proportion of the total variation in the dependent variable which is "explained" by the independent variables. In a large sample such as this, an R-squared of .3 or

higher would be considered a good result. (R-squared can range from zero, indicating no systematic relationship, to 1.0, indicating a perfect "fit".) Nine different equations were tested using various forms and combinations of the independent variables. It was found that using logarithmic functions for the dependent variable and some of the independent variables produced the best results.

Another test, called the "t-statistic", measures the significance of each independent variable; a t-statistic less than plus or minus 1.5 indicates that the independent variable does not help predict the value of the dependent variable, and can be disregarded.

For the Back Bay/Beacon Hill condominium transaction database, we tested the following independent variables:

VARIABLE	DESCRIPTION
LOCATIONS:	
(DEFAULT)	Beacon Street, from Arlington to Charlesgate
LOWER	Chestnut and Brimmer Streets
BEA	Beacon Street, facing the Common
MARB	Marlborough Street
COMM	Commonwealth Avenue
COMDIST	Distance from the Common, measured by increasing address numbers going west from Arlington St.

CLOS Distance from Common, with "CLOS" meaning all LOWER and BEA, plus addresses on MARB and COMM less than 100, and on Beacon between 100 and 200

BUILDING & UNIT CHARACTERISTICS:

AREA	Size, in square feet
FLOOR	Floor location in building
TYPE	Building size greater or less than 15,000 SF; (calculated from ratio of AREA to the percentage of common area deeded with unit)
BED	Number of bedrooms
ВАТН	Number of bathrooms
PARKING	Deeded parking included in the sale

TRANSACTION DATA:

PRICE	Sale price						
SQFT	Sale price/square foot						
YRI	Year of sale is 1982; 1983 is default value						
YR2	1984						
Y R3	1985						
MO	Month of sale						

The results from two equations are shown below, one with LPRICE as the dependent variable, and the second with LSQFT as the dependent variable; the logarithmic form is noted by the prefix "L":

DEPENDENT VARIABLE: LSQFT (LOG OF PRICE/SF)

VARIABLE	B- COEFF.	TEST VALUE	FACTOR
	AA		126 47
CONSTANT	4.04	-	120.47
MO	0.026	6	1.17
YRI	0.307	0	1.00
YR2	0.623	0	1.00
YR3	0.623	1	1.86
TYPE	-0.045	0	1.00
LBATH	0.062	2	1.04
FLOOR	0.031	5	1.17
COMM	-0.067	0	1.00
LCOMDIST	-0.062	1000	0.65
PARK	0.122	0	1.00
BED	0.017	2	1.03
ESTIMATED PRI	CE/SF		\$226.49

MULTIPLE REGRESSION ANALYSIS: EQUATION #4 R-SQUARED = .85

DEPENDENT VARIABLE: LPRICE (LOG OF PRICE)

VARIABLE	B-COEFF.	TEST VALUE	FACTOR
CONSTANT	4.23		68.72
LAREA	1.019	1000	1140.25
MO	0.027	6	1.18
YRI	-0.285	Ō	1.00
YR2	0.304	0	1.00
YR3	0.626	1	1.87
TYPE	-0.066	0	1.00
LBATH	0.071	2	1.05
FLOOR	0.032	5	1.17
LOWER	0.106	0	1.00
COMM	-0.077	0	1.00
CLOS	0.069	1	1.07
PARK	0.122	0	1.00
ESTIMATED PRIC	E		\$227,571.00
ESTIMATED PRIC	E/SF		\$227.57

For each equation, the variables used were found to be significant using the t-statistic test. The R-squared statistic is very good for both, though higher in the second equation because it contains AREA as a variable which explains a large

portion of the variation in PRICE, as one would expect. The first equation has less variation explained because the size of the unit is already controlled by the definition of the dependent variable, SQFT, which is price per square foot.

The coefficient values can be best understood as follows: the linear coefficients (without the "L" prefix) estimate the percentage change in the dependent variable for a given unit change in the independent variable. For example, the coefficient for MO (month) in both equations is about .026; the interpretation is that for each additional month, the price or price per square foot increases 2.6%. Holding all else constant, therefore, inflation is predicted to be 2.6% per month if the trend from the past 30 months were to continue. The year of sale variables measured past inflation as well and they show that the increase in prices has been very steady from 1982 to 1983 to 1984 to 1985, roughly 30% per year. The important thing is that the inflation rate measured here is isolated from potential distortions that may occur by simply looking at average sale prices from year to year. For example, the average can be affected by changes in the proportion of smaller units from year to year.

The coefficients derived from the logarithmic variables represent the percentage increase in the dependent variable resulting from a 100% increase in the value of the independent variable. For example, in equation nine above, the coefficient for LCOMDIST is -.062: it predicts that, all else being equal, that the price per square foot will be 6.2% less for an apartment two

blocks from the Commom than a unit one block away, and 6.2% less again four blocks away, and so on. This demonstrates the marginal utility concept quite well, as one would expect that as one moved farther from a desirable location prices would decrease, but at a decreasing rate.

The interpretation of the remaining coefficients are similarly derived:

From equation 9:

- TYPE reduce price/sf 4.5% for units in buildings exceeding 15,000 square feet;
- LBATH increase price/sf 6.2% for each 100% increase in number of bathrooms;
- FLOOR increase price/sf 3.1% for each step up in floor height;
- COMM reduce price/sf 6.7% for Commonwealth Ave. location;
- PARK increase price/sf 12.2% for deeded parking;
- BED increase price/sf 1.7% for each additional bedroom;

Equation 4 showed virtually identical results for the date of sale variables, TYPE, LBATH, FLOOR, COMM, and PARK. In addition, the coefficient for LAREA, 1.019, indicates a 101.9% increase in price for a 100% increase in size. This result is curious as most people would expect that cost should decrease as size increases. This equation included CLOS as a different type of location variable: it considers all units within the first couple blocks as "close" to the Common, and estimates that these locations are worth 6.9% more than those not "close" to the Common. This is a simpler, though arbitrary, substitute for LCOMDIST; the important result is that both measure a similar

premium value for the amenity.

It should be noted that the predictive power of the equations is limited because, as the R-squared statistic suggests, not all the variation in prices is being explained by the variables tested. For one thing there are a number of important variables that, for lack information, are missing. Perhaps the most significant example is information on the date and quality of most recent interior improvements. Some condominium conversions follow almost total reconstruction, and others involve only minor aesthetic improvement. Other amenities that may have a significant impact upon price, for which we do not have detailed information, include: air conditioning, water view, fireplaces, garage parking, and interior detail. The waterview variable might have been estimated using the units on the water side of Beacon Street, but we could not be sure which units definitely had waterside exposure.

When important variables are missing, the impact sometimes shows up in a distortion of one or more of the variables tested. For example, the curious result in the LAREA variable noted above may reflect a typically higher quality level in the larger apartments. The result for the value of parking may be similarly based on a concentration of parking spaces among high quality units. We can speculate about such relationships, but we cannot know for sure.

Recognizing its limitations, the equations are still able to predict prices with a great deal more validity than simple averages and summaries of transaction data. The test values plugged into the equations above are based on a "typical"

condominium: 1000 square feet, 2 bedrooms, 2 baths, on the fifth floor of a "small" building, close to the common on Beacon Street, without parking, sold in June 1985. Both equations, though they include some different variables, produce similar results: approximately \$227,000, or \$227/square foot. As the following tables show, we can now use the equations with these basic assumptions to predict the impact of changes in any two variables simultaneously on price per square foot:

PRICE/SF AS FUNCTION OF AREA AND # BATHS (EQ. #4):

BATHS

		1	2	3
S	500	\$214	\$225	\$231
F	750	\$215	\$226	\$233
_	1000	\$217	\$228	\$234
Α	1250	\$218	\$22 9	\$235
R	1500	\$218	\$229	\$236
E	1750	\$219	\$230	\$237
Ā	2000	\$220	\$231	\$237

PRICE/SF AS FUNCTION OF AREA AND FLOOR (EQ. #4):

FLOOR

		1	3	5	7	9
S	500	\$198	\$211	\$225	\$239	\$255
F	750	\$199	\$212	\$226	\$241	\$257
	1000	\$200	\$213	\$228	\$243	\$259
A	1250	\$201	\$214	\$229	\$244	\$260
R	1500	\$202	\$215	\$229	\$244	\$261
E	1750	\$202	\$216	\$230	\$245	\$261
Ā	2000	\$203	\$216	\$231	\$246	\$262

PRICE/SF	AS	FUNCTION	OF AREA	AND	PARKING	(EQ.	#4):		
		PARK	ING	(1=3	ES, 0=N	0)			
				0	1				
S		500	\$2	25	\$25 4				
Ľ		1000	>2 \$2	20 28	₽250 \$257				
А		1250	\$2	29	\$258				
R		1500) \$ <u>2</u>	29	\$259				
Е		1750	\$2	30	\$260				
A		2000	\$2	31	\$261				
PRICE/SF	AS	FUNCTION	OF AREA	AND	DISTANC	E FROM	COMM	ION (EQ.	#4):
								ی جوہ جو جو جو جو جو	
		DISTANCE	FROM C	OMMON	N (1=CLO	SE, 0=	FAR)		
			1	0	1				
S		500	\$2	10	\$225				
F		750	\$2	11	\$226				
		1000	\$2	12	\$228				
A		1250	\$2	13	\$229				
R		1500	\$2	14	\$229				
E		1750	\$2 \$2	15	\$230				
А		2000	Ş2	15	\$231				
PRICE/SF	AS	FUNCTION	OF BEDR	OOMS	AND DIS	TANCE	FROM	COMMON	(EQ #9):
		DISTANCE	FROMC	ommon	I (ADDRE	SS = V	ALUE/	10 + 10)0)
		50	500		1500	2500		3500	4500
В	1	\$268	\$232		\$217	\$210		\$206	\$203
D	2	\$273	\$236		\$221	\$214		\$210	\$206
R	3	\$277	\$240		\$225	\$218	1	\$213	\$210
M S	4	\$282	\$245		\$229	\$221		\$217	\$213

CONCLUSIONS

The analysis of the Condex data has provided an understanding of the size, price trends and buyer preferences in the Back Bay/Beacon Hill condominium market. The volume of transactions over the last two and half years indicates that the potential volume of units in the Emerson properties would represent approximately six months supply, assuming no other competition. Since there have been significantly fewer transactions recorded for the first six months of 1985 than the previous semi-annual periods, despite the fact that there are more than 300 units in the area currently listed with brokers, there is some evidence to suggest a slowing in absorption. The price spiral has shown no evidence of slowing, however, in 1985.

Price levels are now frequently above \$200/SF, but have rarely broken through into the \$250 to \$300/SF range. A preponderance of the highest priced condominiums are in a few unique properties which are not comparables to the Emerson properties. The regression analysis suggests that the typical selling price for condominiums in the area on Beacon street where several of the Emerson properties are located ought to be in the \$200 to \$250/SF range, depending on building size, parking availability and other amenities offered. The large properties beyond Massachusetts Avenue, 534 and 535 Beacon Street, are predicted to be achieve less value due to the relatively distant location, the lack of parking for most units, and the large size of the buildings. The lack of a waterview variable presents somewhat of an unknown but, based on brokers' feelings about the marketplace, location and parking are more valuable amenities.

(3) COMPETITION

Since the conversion of the Emerson College properties will yield over 300 units that might conceivably come onto the market

over as little as a six month period, our competitive evaluation is focused on other large volume development projects that would appeal to the same buyer profiles. The random turnover of individual units that is a constant in every city cannot be addressed directly at this time.

From a summary table of proposed housing currently under BRA review, we note the following projects with potential to have a competitive impact ("M.R." indicates market rate):

Location/Project	<u> # Units</u>	Price/SF	<u>Availability</u>
Rowes & Fosters Wharves	105	\$400	Summer, '87
Arlington - Hadassah	90	380	Fall, '87
Fan Pier	460	M.R.	Winter, '89
Charlestown Navy Yard	450	M.R.	Summer, '89
Prudential Center	400	M.R.	Not known
Pier 4	250	M.R.	Winter, '90
Boston Wharf Co.	348	M.R.	Not known
Marlborough Building	40+	M.R.	Fall, '86

Emerson College authorities are planning on the sale of the properties taking place in the Fall of 1985 and project the physical release of the campus buildings two years later in the Fall of 1987. This schedule would result in converted unit availability over the time span from March through September of 1988. Since Emerson faces the enormous task of land purchase, design and construction of a multibuilding campus, and relocation of their entire operation, there is potential for a full year delay in this proposed schedule. This would shift the major

marketing effort to 1989.

As can be seen from the projects listed above, 1988 would be an ideal year to market these converted properties since the 235 units represented by the Marlborough, Rowes, and Arlington projects should have been absorbed in the two years prior to 1988, and the 910 units represented by the Fan Pier and Charlestown projects would not be on the market until 1989. 1988, it seems, represents an opportunity in the form of a "window" in the marketplace. Nevertheless, the projects listed represent a large, and probably unprecedented, amount of new market rate housing to be added in or near downtown Boston in a five year time span.

We feel that there is some element of a marketing advantage inherent in the Emerson properties that is unique relative to all of the potential competition in the form of new construction. It is simply that these buildings are the only ones located in what can be described as a neighborhood. Each of the competitive entries, is, or is part of, a large complex with no neighborhood identity and little likelihood of establishing one. However, the 1988 market is still preferable to 1989 due to the relative lack of competition and the risk reduction inherent in a shorter holding period.

There is some concern over the 400 condominium units being planned for the Prudential Center as part of their renovation/ expansion plan. This is in the early conceptual design stage and no phasing sequence has as yet been assigned to the various additional uses planned for the site. It would appear, from the current status, that availability of these units would not be

likely before 1990, however, any speed up of the plan that moved availability into 1988 or 1989 could have a serious impact since this is a prime Back Bay site. The Emerson properties could no longer be differentiated by location as it could with the other competitors and the sudden availability of over 700 units would take much longer for the market to absorb in the Back Bay area.

IV. DEVELOPMENT PLANS AND APPROVALS

(A) MARKETING, DESIGN AND DEVELOPMENT SUMMARIES

With the results of the market study in mind, we have formulated a preliminary development plan for each of the buildings that reflects both the assets and the liabilities discovered in the initial property inventory. The primary focus, at this point, is to consider what the design and marketing strategy ought to be for each property independently, in terms of the number and type of units, quality of construction, and target market segment (including pricing). We have considered the tradeoffs between minimizing construction costs and maximizing the usable area, and have indicated the factors we feel most uncertain about.

For each of the properties, therefore, we present below a few paragraph distillation of our conclusions regarding the marketing and design issues, followed by a "quick and dirty" one page development pro forma, including our estimate of likely construction and development costs. Our key assumptions for these pro formas vary somewhat from building to building, depending on the perceived difficulty and likely duration of the renovations. (The construction estimate for 10 of the 14 properties, excluding 534 and 535 Beacon Street, 69 Brimmer Street, and 355 Commonwealth Ave., was provided by a contractor experienced in high quality Back Bay restoration work. We provided the estimates for the remaining properties based on our sense of the level of renovation required.) Among the key assumptions are:

 Architecture and Engineering Fees equal 6.5% of construction costs;

- 2. Development Fee equals 3% of total development costs;
- 3. Construction Financing for the acquisition and development costs at 10.5% interest, with interest on the development costs based on an average of 50% of the loan outstanding;
- 4. Financing Costs during the period of marketing beyond the construction period based on the total amount outstanding drawn down equally over the sell out period indicated;
- 5. Contingency equal to 5% of total development costs;
- 6. One year of inflation on the projected selling price from the estimated 1985 value, equal to 10%;
- 7. Selling costs, including broker commissions, advertising and marketing materials equal to 3% of gross sales. We assume an in-house marketing effort would be efficient for the large volume of space, allowing for substantial savings on marketing costs.

The individual development plans and pro formas are followed by a single page summary of the key results, and a number of "what if?", or sensitivity analyses that show how sensitive the results are to changes in various assumptions.

Our bottom line, for each of the buildings at this point, is the price we would be willing to pay for each property today assuming it were vacant and available for conversion following a typical period for negotiation. closing. and predevelopment planning and design. We believe this is a valid starting point from which to begin a discussion of the more complex issues involved in structuring an acquisition of the entire campus. In the next section of the thesis, "PART V -- DEVELOPMENT AND ACQUISITION STRATEGIES", we reconsider the design and marketing issues from a broader perspective, one that a buyer of the entire portfolio should be concerned with, including overall product mix and market timing. We also reexamine the development

revenues and costs, factoring in the lengthy interim period between acquisition and development, with its implications for the impact of carrying costs, and inflation of prices and construction costs.

(1) 69 BRIMMER STREET

This property was built for institutional use but is in a very desirable residential location. The current interior layout of the building is totally non-conducive to residential use and will require extensive redesign and reconstruction. Kitchens and bathrooms for eight studios and thirteen one bedroom units represent an additional major conversion expense as will the installation of an elevator shaft, new HVAC and electrical service.

Since most of the concern over Boston's water table problem centers around Brimmer Street, there is a possibility that serious foundation work may be required at an estimated cost of \$1000 per lineal foot of wall space (per Inspectional Services Department of the City of Boston).

The pleasant neighborhood, proximity to downtown Boston, and the nearby shops and stores on Charles Street are positive amenities from a marketing point of view, as is the desirability of living in Boston's most prestigious neighborhood. The availability of only two parking places is partially offset by the sticker parking system in effect for most of Boston's neighborhoods and the Brimmer Street Garage, located directly across the street, in which available spaces turn over at \$40-50,000 per space.

PROPOSE	D USE:		19 Ur	nit Con	Iominium 69 BRINNER STREET							DATE:	06-Jul-85	
Floor	Type:	st	lbr	2br	3br	Baths	5 Quality	Other		Area	Tota	l Area	\$/SF	Sale Price
i		?	?	?	?	•	? luxury					4740	225	1066500
2		?	?	?	?	5	luxury					3950	225	88 8750
3		?	?	?	?	•	? luxury					39 50	240	94800 0
4		?	?	?	?	•	? luxury					3950	260	1027000
avg siz	e 50	0	700	1100	1500									
Totals		3	7	8	.1	29	}		Effic.:		67%	16590	236.9	3930250
					DEVELOPH	ENT COS	GT SUMMARY		teerson:		6/1	16600		
					CONSTRUC	TION C	 0STS							
						TOTAL	GROSS SF =					24.682		
						AT AV	ERAGE CONST	. COST OF				\$50.00	/SF	\$1,234,100
					rcca	ARCH	ITECTURE AN	D ENG O				6.50	7	\$80.217
						DEVE						3.00	7	\$105.431
						LEGA	L AND ACCOU	NTING					-	\$10.000
						. COND	D DOCUMENTS							\$10.000
					CONSTRUC	TION F	INANCING (C	I) e				10.50	2	,
						BASED	ON NET SAL	ES PERCEN	T =			85.00	2	
						BUILD	ING PURCHAS	E AT			\$1,7	06,628		
						FINAN	CED FOR				,	ʻ 9	MONTHS	\$134,397
						CONST	RUCTION LOA	N BALANCE	AT		\$1,9	11,638		•
						DRAWN	DOWN FOR					. 9	MONTHS	\$75,271
						INTER	EST DURING	MRKTG. FO	IR			3	MONTHS	\$47,490
						FINAN	CING FEES @					1.00	7	\$36,183
						CLOSI	NG COSTS e					1.00	Z	\$36,183
					ANNUAL P	ROPERT	Y TAXES AND	INSURANC	Ee			3 .0 0	7	
						DURIN	G CONST. &	MARKETING	FOR			12	MONTHS	\$51,199
					CONTINGE	NCY e			57	of devel	opment c	osts		\$91,023
					TOTAL DE	VELOPH	ENT COSTS	01051						\$1,911,638
						I CADI C	ADEN	RIGEI						14 500
					CALE POT	TE PED	COHARE EDO	T (CP)						\$260 60
					ONCE INI	PRESE	NT PRICE PE	R 60 FT				1776 DO		4200.00
						TNELA	TTAN AT				•	10 00	, 17	
						HOLDT	NG PERIOD					10100	- 	
					PARKING	SPACES			2 A	T	:	20,000	yeu	\$40,000
					TULT CV		223222222	22822222	2222222222		.========	:222282		**************************************
						1 200.1		TS AT				7 00	۶.	47,003,2/0 (170 000
						LE33:	DELLING GUJ Noment poet	на пі С				3.00	h	#130,070
							UI IILNI 6031 222222222222							41,711,030 ===================================
					CASH FLO	W BEFO	re purchase	•						\$2,360,739
					PURCHASE	PRICE	WITH PROFI	T = ===================================		,,	.2222222	15.00)% :=======	\$1,706,628
					TOTAL PR	OFIT F	ROM DEVELOP	MENT						\$654,111

(2) 96 BEACON STREET

While this property would probably be most efficiently used as a single family, the price it would require seems prohibitive for one buyer. Floors 2, 3, and 4 break down nicely into front and back two-bedroom units. This is accommodated by the location, on the central western side of the building, of an attractive, heavy main stair, an elevator, and an enclosed fire stair. The location of this main stair, however, requires the front half of the first floor to be left as common space to retain access to the stairs and elevator. The rear half of the first floor can be effectively duplexed with the rear half of the basement to gain a total of seven two-bedroom units containing either 1200 or 2000 square feet.

The major costs will be the partitioning and reconstruction of detailing as required to segregate each unit, the addition of kitchens and baths, rewiring and the redesign of the HVAC for seven residential units. Additionally, since the entire main wall on the exposed side of the building is solid masonry, it would be desirable to punch in several windows for natural light access into the building.

Another potential cost of significance could be the construction of a central entrance on the exposed side of the building which would allow the capture of the front half of the first floor as the eighth residential unit (one bedroom). This will require the approval of the Beacon Hill Architectural Commission and probably the Metropolitan District Commission, which controls the adjacent pedestrian bridge to the Esplanade.

Alternatively, the front first floor space might be sold or rented for office use.

The pluses on the marketing side are the convenience of its location at the northeastern end of the Public Garden, which provides the front unit views, and the river views from the back units. A negative on the location is its siting at the very busy intersection of Beacon and Arlington Streets and Embankment Road. Secondly, the availability of only two parking spaces in total for units of this size and price range, and the difficulty of on street parking at this location, is an objection that will be difficult to overcome.

PROPOSED USE:	7 Un:	it Con	dominium	96 BEAC	CON STREET				DATE:	06-Jul-85
Floor Type: st	ibr	2br	3br	Baths	Quality	Other	Area	Total Area	\$/SF	Sale Price
LL/1		1		2	luxury		2000	2000	180	360000
2		2	1	4	luxury		1200/2000	3200	225	720000
3		2		4	luxury		1200/2000	3200	240	768000
4		2		4	luxury		1200/2000	3200	240	768 000
Totals		7		14		Effic.	.: 742	11600	225.5	2616000
			DEVELOPN	ent cost	r Sunhary	Emerso	on: 557	8586		
			CONSTRUC	TION COS	 STS					
				TOTAL (GROSS SF =			15,619		
			FEES	AT AVE	RAGE CONST	. COST OF		\$38.73	/SF	\$605,000
				. ARCHI	TECTURE AN	D ENG e		6.50	7	\$39,325
				.DEVEL	DPMENT @			3.00	2	\$70,885
				.LEGAL	AND ACCOU	NTING				\$10,000
				. CONDO	DOCUMENTS					\$10,000
			CONSTRUC	TION FI	NANCING (C	I) ê		10.50	7	
				BASED	dn net sal	ES PERCENT =		85.00	Z	
				BUILDI	NG PURCHAS	EAT		\$1,375,252	MONTH	
				FINANCI	ED FUK			A4 687 477	MUNIHS	\$108,301
				LUNS (KI	UCTIUN LUA Noun cod	N BALANLE AT		\$1,05/,433) - M/201711/7	
				UKRAN I	DUWN FUK	NDVIC COD		•	MONTUC	₩ ₽ ₩1,000
				EINANC	DI VURINO TNC EEEC A	MAKID. FUR		1.00	⊧ nunina .∀	401 727
				CINANC.	E COSTE A			1.00	' 6 17	*27,321 \$94 397
				ROPERTY	TAXES AND	INSURANCE		3.00	7 m 1 Z	4249327
			TRUNGING T	DURING	CONST. &	MARKETING FOR		12	MONTHS	\$41,258
			CONTINGE	NCY E			5% of develop	nent costs		\$50,349
			TOTAL DE	VELOPNEI (LESS	NT COSTS PURCHASE P					\$1,057,433
			TOTAL SA	LEABLE	AREA					11,600
			SALE PRI	CE PER	SQUARE FOO	T (SP)				\$248.07
				PRESEN	T PRICE PE	R SQ. FT.		\$225.52	2	
				INFLAT	ION AT			10.00	2	
				HOLDIN	6 PERIOD			1	year	
			PARKING	SPACES	==========		2 AT	\$20,000) :== = =====	\$40,000
			TOTAL SA	LES						\$2,917,600
				LESS: S	ELLING COS	TS AT		3.00)Z	\$87,528
				DEVELO	PHENT COST	S ====================================		82222222222		\$1,057,433
			CASH FLO	IN BEFOR	e purchase					\$1,812,639
			PURCHASE	PRICE	WITH PROFI	T =	******	15.0)%	\$1,375,252
			TOTAL PR	OFIT FR	ON DEVELOP	MENT				\$437,387

(3) 100 BEACON STREET

This property will require little in the way of interior reconfiguration, as it was originally designed for residential use, with an attractive entry foyer, central core, including elevators and fire stairs. Floors 2 to 10 have virtually identical layouts, with all rooms situated around a central stair, to which Emerson has made only minor changes. This configuration provides good flexibility to mix unit sizes according to the requirements of the market. The major costs will be adding new kitchens and baths, rewiring and repartitioning the spaces for apartments, and adding air conditioning. A major unknown is how much area in the basement can be sold; we have assumed a slightly lower overall net usable area than Emerson as a result.

From a marketing perspective, the major attributes are the location and views, and the negatives are very limited parking, a noisy corner location (a significant factor for the lower floors), and the major adjacent use, Fisher Junior College. These factors take this property out of the super-luxury category, but the positive factors ought to make it extremely attractive to the young professional market that is less concerned with parking. The objective should be to maximize the number of units, with a mix of relatively small studios, one and two bedrooms.

PROPOSE	D USE:		53 Ur	nit Con	dominium	100 BE	CON STREE	T				DATE:	06-Jul-85
Floor	Type:	st	1br	2br	3br	Baths	Quality	Other	Area	Tota	il Area	\$/SF	Sale Price
LL			2	1		4	nid				2000	200	400000
1		1	3	1		6	mid-lux				3200	220	704000
2-10		9	9	27		72	aid-lux		3700/	f1	33300	240	7992000
(typ.)													
Totals		10	14	29		82		Effic	.:	807	3850 0	236.2	9096 000
					DEVELOPH	ENT COST	SUMMARY	Laers	on:	832	40000		
					CONSTRUC	TION CO	STS						
						TOTAL I	GROSS SF =				48,268		
					FEES	AT AVE	RAGE CONST	. COST OF			\$35.63	/SF	\$1,720,000
						.ARCHI	FECTURE AN	D ENG e			6.50	7.	\$111.800
						.DEVEL	IPMENT e				3.00	ž	\$245,459
				.LEGAL	AND ACCOU	NTING					\$10,000		
			. CONDO	DOCUMENTS						\$10,000			
		CONSTRUC	TION FI	NANCING (C	I) e			10.50	7.				
						BASED (on net sal	es percent =			85.00	Z	
						BUILDI	IG PURCHAS	e at		\$5,2	201,267		
						FINANCI	ED FOR				9	MONTHS	\$409,600
						CUNSTR	JUTION LUA	N BALANCE AT		\$3,2	222,604		
						UKAWN I	JUWN FUR	NOVIO FOD			9	HUNTHS	\$126,890
						INIERE:	DI DUKING "	NKKID. FUK			ن • • •	nun (HS	\$110,563
						CLOCING	IND FEED 8				1.00	*	\$84,239
						LLUDINI DADEDTV	TAVEC AND	INCHDANCE			1.00	** *	\$84, 237
					HARUNE I	NIDING	CONCT &	INSURANCE MADVETING COD			3.00	A MONTUC	#154 A70
					CONTINGE	NCY &	CUNJI. X	NHAREIING FUR	5% of devel	opment o	osts 12	nun no	\$153,441
					TOTAL DE	VELOPNEI	IT COSTS	************	=============			2832522	\$3,222,604
						(LESS I	PURCHASE P	RICE)					
					TOTAL SA	LEABLE A	AREA						38,500
					SALE PRI	CE PER S	QUARE FOO	T (SP)					\$259.89
						PRESEN	PRICE PE	R SQ. FT.		1	236.26		
						INFLAT	LUN AI				10.00	2	
						HULDIN	S PERIUD		/ AT		1	year	*****
					CHAKING :	3FMCC3 2222222:			0 HI ==============	; :========:	======	======	\$120,000 ==========
					TOTAL SA	LES							\$10,125,600
						LESS: SI	ELLING COS	TS AT			3.00	7.	\$303,768
						DEVELO	PHENT COST	5					\$3,222,604
					Cash Flo	N BEFORE	PURCHASE						\$6,719,228
					PURCHASE	PRICE I	ITH PROFI	T =			15.00	۲ =========	\$5,201,267
					TOTAL PR	DFIT FR	IN DEVELOP	MENT					\$1,517,961

(4) 126-128-130 BEACON STREET

The location and flexibility of having three contiguous buildings to work with are the primary marketing advantages in this property. By eliminating some of the stairwells in 126 and 130, and using the attractive central stair in 128 as the primary access to the upper levels of all three buildings, a significant increase in overall usable area is possible. Though expensive to make such major structural changes, there is a potential for picking up an additional 6,000 square feet of saleable area. The limited amount of internal detail should be saved; decorative stair rails removed should be reused in duplex units if possible. The properties will require a virtual gut rehab, with all new kitchens and baths, reconfiguration of walls, mostly new HVAC, a new elevator and shaft, and an expensive restoration of the brownstone stairs and facades.

There are currently only 8 parking spaces, but the existing carriage house extension in the rear may be convertible for 8-10 garage spaces. This allows for making several large units, to be marketed in the super-luxury price range. The remainder of the units should be designed for maximum efficiency, with rather small units, but high quality finishes to attract the highest price per square foot. The location adjacent to a major access point to Storrow Drive is probably not a serious drawback, and the corner building provides more windows and, therefore, additional internal design flexibilty. The basement space should be connected to the first floor as duplexes, to make it more saleable. Given the complexity of the required rehab, the unit mix and efficiency are only best guesses at this point.
PROPOSE	D USI	E:	30 U	nit Con	dominium	126-12	B-130 BEACO	N STREET					DATE:	06-Jul-85
Floor	Тур	e: st	İbr	2br	3br	Baths	Quality	Other		Area	To	tal Area	\$/SF	Sale Price
grd	1	?	?	?	?	?	luxury					5450	200	1090000
1		?	?	?	?	?	luxury					6020	225	1354500
2		?	?	?	?	?	luxury					6040	225	1359000
3		?	?	?	?	?	luxury					5790	240	1389600
4	4	?	?	?	?	?	luxury					535(250	1337500
		550	750	1000	1250									0
Totals		3	12	12	3	48		E	ffic.:		74%	28650	227.9	6530600
					DEVELOPH	ENT COS	t sunhary	E	aerson:		582	22458		
					CONSTRUC	TION CO	 STS						*****	
						TOTAL	GROSS SF =					38.95	5	
						AT AVE	RAGE CONST.	COST OF				\$55.00) /SF	\$2,142,580
					FEES	. ARCHI	TECTURE AND	ENG e				6.5)Z	\$139,268
						.DEVEL	OPHENT è					3.00)7	\$180,145
						.LEGAL	AND ACCOUN	ITING						\$10,000
						. CONDO	DOCUMENTS							\$10,000
					CONSTRUC	TION FI	NANCING (CI) e				10.5) 1	
						BASED	on net sale	S PERCENT	=			85.00)7	
						BUILDI	NG PURCHASE	AT			\$2	,894,60	7	
						FINANC	ED FOR					(7 NONTHS	\$227,950
						CONSTR	UCTION LOAN	BALANCE	AT		\$3	,287,82	5	
						DRAWN	DOWN FOR						7 MONTHS	\$129,458
						INTERE	ST DURING M	IRKTG. FOR	8			•	3 MONTHS	\$81,144
						FINANC	ING FEES @					1.0	07	\$61,824
						CLOSIN	6 COSTS 🖲		_			1.0	0%	\$61,824
					ANNUAL PI	ROPERTY	TAXES AND	INSURANCE				3.0	07.	
						DURING	CONST. & M	IARKETING	FOR			1	2 MONTHS	\$86,838
						NCY 8 =======			5% 	of devel	lop s ent	costs		\$156,552
					TOTAL DE	VELOPHE	NT COSTS PHRCHASE PR)TCE)						\$3,287,825
					TOTAL SA	FARIF	ARFA							28.650
					SALE PRI	CE PER	SQUARE FOOT	(SP)						\$250.74
						PRESEN	T PRICE PER	SQ. FT.				\$227.9	1	4200171
						INFLAT	ION AT					10.0	זע	
						HOLDIN	6 PERIOD						vear	
					PARKING	SPACES			8	AT		\$20,00)	\$160,000
					TOTAL SA	LES				============	******	2288222		\$7,343,660
						LESS: S	ELLING COST	IS AT				3.0) %	\$220,310
						DEVELO	PMENT COSTS	;						\$3,287,825
					CASH FLO	W BEFOR	e purchase						====	\$3,995,525
					PURCHASE	PRICE	WITH PROFIT	-		***		15.0	0% =======	\$2,894,607
					TOTAL PR	DFIT FR	ON DEVELOPH	IENT						\$1,100,918

(5) 143-145 BEACON STREET

Though these properties are contiguous to 303 Berkeley, there is no absolute need to attach them in a redesign, with the exception that they currently share electrical service. A significant increase in efficiency is possible in these properties through elimination of stairwells in 145, and installation of a new elevator in 143 to serve both. An almost total rehab is required, with all new kitchens, baths, HVAC, and major brownstone facade work. Some detail is worth preserving in 143. There is questionable headroom in much of the basement space, particularly with the mechanical equipment running across the ceilings.

A major redesign, in order to gain usable area, would probably result in floor configurations making a unit mix favoring two and three bedroom units. Given the small number of parking spaces (only two), and the relative plainness of these properties, this result would not achieve top of the market prices. A more detailed cost benefit tradeoff analysis is needed to determine the best mix, but our current assumption is as follows:

PROPOSE	D USE:		11	Unit Con	dominium	143-14	5 BEACON S	TREET					DATE:	06-Jul-85
Floor	Type:	st	1br	2br	3br	Baths	5 Quality	Other		Area	Total	l Area	\$/SF	Sale Price
LL/1		0	1	3	0	7	/ mid-lux					4100	175	717500
2		1	0	0	1	4	aid-lux					2130	200	426000
3		0	0	0	1	2	2 mid-lux					1 80 0	200	360000
3/4		0	0	1	0	3	5 mid-lux					900	225	202500
4		0	0	0	1	3	S mid-lux					1800	225	405000
و 		1	0	0	1	4	l aid-lux		****			2300	250 	575000
Totals		2	1	4	4	82	2	Effi	C.:	7	7 % 57	13030	206.1	2686000
					DEVELOPH	ent cos	ST SUMMARY	CHEL	50111	ل ال] f	1212		
					CONSTRUC	TION CO)STS							
						TOTAL	GROSS SF =					16,896		
						AT AVE	ERAGE CONST	. COST OF			:	\$34.68	/SF	\$586,000
					FECO	. ARCHI	ITECTURE AN	D ENG e				6.50	z	\$38,090
						. DEVEL	OPMENT 🖲					3 .0 0	2	\$72,725
						.LEGAL	AND ACCOU	NTING						\$10,000
						.CONDC) DOCUMENTS							\$10,000
					CONSTRUC	TION FI	INANCING (C	I) ê				10.50	7	
						BASED	ON NET SAL	ES PERCENT =				85.00	2	
						BUILD	ING PUKCHAS	E AI			\$1,4	47,631	MONTHO	
						FIRHAL PONCTO	CV FUK				#1 A	7 10 301	NUR I H S	\$114,001
						DRAWN	NOUN FOR	N DHLHNLE HI			¥1,0	zvi, 201	MONTUC	*#1 377
						INTER	ST DIRTNG	NRKTG FOR				ז ז		470 750
						FINANC	ING FFFS A					1.00	2 10001113	\$74 958
						CLOSIN	IG COSTS @					1.00	ž	\$24,958
					ANNUAL P	ROPERTY	TAXES AND	INSURANCE				3.00	ĩ	
						DURINE	G CONST. & I	MARKETING FOR				12	MONTHS	\$43,429
					CONTINGE	NCY E			5% of	develo	pment c	osts		\$49,910
					TOTAL DE	VELOPNE	ENT COSTS Purchase Pi	RICF)						\$1,048,201
					TOTAL SA	LEABLE	AREA							13.030
					SALE PRI	CE PER	SQUARE FOO	T (SP)						\$226.75
						PRESEN	IT PRICE PE	R SQ. FT.			\$	206.14		
						INFLAT	TION AT					10.00	1	
						HOLDIN	IG PERIOD					1	year	
				×	PARKING	SPACES			2 AT		\$	20,000		\$40,000
					TOTAL SA	LES								\$2,994,600
						LESS: S	SELLING COS	TS AT				3.00	ï	\$89,838
					========	DEVELO	IPMENT COST	5	******	=======	2252225		222222	\$1,048,201
					CASH FLO	W BEFOR	Re Purchase							\$1,896,561
					PURCHASE	PRICE	WITH PROFI	T =				15.00	% =======	\$1,447,631
					TOTAL PR	OFIT FR	ROM DEVELOP	MENT						\$448,930

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(6) 303 BERKELEY STREET

This property benefits considerably from its corner location, with windows on three sides, and has a very unique and attractively detailed entry foyer. Emerson has nicely restored the first floor, and creating duplexes down to the basement would help get maximum value from those spaces. The existing central core is fairly efficient, includes a working elevator, and should work well for nice sized, two bedroom, full floor units on the upper floors. Therefore, little redesign is needed overall and the major costs will be kitchens and baths, new HVAC, and some exterior brownstone restoration.

With only four parking spaces, tandem style, serving six units, the absolute potential of this property is diminished somewhat. Nevertheless, it is highly desirable in most other respects, and marketable in the luxury price range. We project the following unit mix and pricing:

PROPOSE	D USE:		6	Unit Con	dominium	303 BEF	KELEY STR	EET					DATE:	06-Jul-85
Floor	Type:	st	lbr	2br	3br	Baths	Quality	Other		Area	Total	Area	\$/SF	Sale Price
LL/1		0	i	i	0	4	luxury					1850	225	416250
2		0	0	1	0	2	luxury					1300	225	292500
3		0	0	1	0	2	luxury					1250	240	300000
4		0	0	1	0	2	luxury					1100	240	264000
5		U	U	1	0	2	luxury					1000	250	250000
Totals		0	1	5	0	12		Effi	ic.:	7	 67. 77	6500	234.2	1522750
					DEVELOPHI	ENT COST	SUMMARY	Leer	'SON:	1	36	6290		
					CONSTRUC	TION COS	STS							
						TOTAL (GROSS SF =					8,566		
					FEES	AI AVE	(AGE CUNST	. CUST UF			1	536.42	/SF	\$312,000
						.ARCHIT	ECTURE AN	D ENG e				6.50	7.	\$20,280
						.DEVELO)PHENT e					3.00	z	\$43,208
						.LEGAL	AND ACCOU	NTING						\$10,000
						.CONDO	DOCUMENTS							\$10,000
					CUNSTRUC	ILUN FI	NANCING (C DN NET CAL	1) E EC DEDCENT -				10.50	~	
						DHOLD L	IN NEI SHL Ie diidruae	ED PERLENI = E AT			*00	74.00 00.00	4	
						FINANCE	IO FORCHAS	C MI			*00	0*0,75 0	MONTH	\$ \$70.075
						CONSTRI	JCTION LOA	N BALANCE AT			\$59	, 73.021	nonna	, */0,0/J
						DRAWN I	OWN FOR					9	MONTHS	\$23.350
						INTERES	ST DURING	MRKTG. FOR				3	MONTHS	5 \$19,463
						FINANC	ING FEES @					1.00	7	\$14,829
						CLOSIN	G COSTS 🗧					1.00	7.	\$14,829
					ANNUAL PI	ROPERTY	TAXES AND	INSURANCE				3.00	2	
						DURING	CONST. &	MARKETING FO	R			12	MONTHS	\$ \$26,695
						NCY @ =======		==================	5% of	develo =======	p e ent co	osts ======	=======	\$28,236
					TOTAL DE	velophei (Less i	it Costs Purchase P	RICE)						\$593,021
					TOTAL SA	LEABLE /	AREA							6,500
					SALE PRI	CE PER S	QUARE FOO	t (SP)						\$257.70
						PRESENT	r PRICE PE	R SQ. FT.			\$2	234.27		
						INFLAT	ION AT					10.00	2	
					BABUTHE	HOLDIN	S PERIOD					1	year	
						SPACES	121238222	***********	3 AT		\$2 ========	20,000 =====	======	\$60,000
					TOTAL SA	LES								\$1,735,025
						LESS: SI	ELLING COS	TS AT				3.00	2	\$52,051
					========	DEVELO	PMENT COST	5 ====================================		=======				\$593,021
					CASH FLO	N BEFORE	e purchase							\$1,149,953
					PURCHASE	PRICE	ITH PROFI	T =				15.00	X =======	\$889,846
					TOTAL PR	OFIT FRI	IN DEVELOP	MENT						\$260,107

(7) 132-134 BEACON STREET

Once again, these contiguous buildings offer the potential for gaining some efficiency through elimination of some stairwells and substantial interior reconstruction. There is some added complexity due to the main entry to 132 being on the side and at a lower level than the 134 entry, and determining how the properties could be redesigned will require additional study. The buildings are in generally poor condition, requiring a virtually complete rehabilitation including new kitchens and baths, HVAC, wiring, and major brownstone restoration. The existing elevator in 132 is too small, and a new shaft, equipment, and cab is needed, hopefully to serve both buildings. A significant factor are 13 outdoor parking spaces currently owned, and the potential for adding 4-6 more garage spaces in the existing rear carriage house.

The location, water views from upper floors, and abundant parking make this a very desirable property, despite the expensive restoration costs. A unit mix favoring larger two and three bedroom units, with high quality finishes and duplexes down to the basement and on the upper floors, should bring relatively high prices in the luxury market:

PROPOSE	D USE:		10 Un	it Con	dominium	132-134	BEACON	STREET						DATE:	06-Jul-85
Floor	Type:	st	1br	2br	3br	Baths	Quality	Other		Are	 1	Total	Area	\$/SF	Sale Price
LL/I		0	0	4	0	8	luxury	duplexes,	, garden i	in bk.			4200	225	945 000
2	2	0	0	1	i	5	luxury		-				2900	25 0	725000
3	i i	0	0	1	1	5	luxury						290 0	250	725000
4/5	i	0	0	0	2	6	luxury	decks					5 80 0	275	1595000
Totals		0	0	6	4	24			Effic.:		792		5800	2 52.5	3990000
					DEVELOPH	ENT COST	SUMMARY	!	Emerson:		877	1	7405		
					CONSTRUC	TION COS	ITS								
						TOTAL (ROSS SF	Ξ				20	,016		
						AT AVE	AGE CONS	ST. COST OF	F			\$5	2.06	/SF	\$1,042,000
					FEES	APPUT		NN ENC A					L 50	۷	#17 770
						.DEVEL	PMENT 0	IND CNU E					3.00	* 2	\$118.664
						.LEGAL	AND ACCO	UNTING						-	\$10,000
						. CONDO	DOCUMENT	S							\$10,000
					CONSTRUC	TION FI	IANCING ((CI) e				1	0.50	z	
						BASED (IN NET SA	LES PERCEI	NT =			8	5.00	7	
						BUILDII	IG PURCHA	NSE AT				\$2,285	,124		
						FINANCE	D FOR						9	MONTHS	\$179,954
						CONSTRU	ICTION LC	JAN BALANCI	e at			\$1,787	,442		
						DRAWN I	IOWN FOR						9	MONTHS	\$70,381
						INTERES	ST DURINE	S MRKTG. FL	DR				3	NONTHS	\$53,452
						FINANU	NG PEES	e .					1.00	7.	\$40,726
						LLUSIN	1 LUSIS 8	IN THEIDAN	re				1.00	7. V	\$40,726
					ANNUAL C	DUPERTIE	CONST 1	WARVETTN	C FOR				3.00	A MINITUR	4LQ 55A
					CONTINGE		CONST. 0		51 51	7 of dev	elnnae	nt ros	12 te	nunina	\$85,109
						=========		.===============		=========	======			======	
					TOTAL DE	VELOPHEI (LESS I	IT COSTS	PRICE)							\$1,787,442
					TOTAL SA	LEABLE	REA								15,800
					SALE PRI	CE PER S	QUARE FO)OT (SP)							\$277.78
						PRESEN	PRICE P	PER SQ. FT.				\$25	2.53		
						INFLAT	ION AT					1	0.00	7.	
						HOLDIN	F PERIOD						1	year	
					PARKING	SPACES			13 ==========	AT ========		\$20	,0 0 0	2525255	\$260,000
					TOTAL SA			10TC AT			-		7	v	\$4,649,000
						DEVELO	MENT COS	STS					3.00	2	\$1,787,442
					CASH FLO	N BEFORI	E PURCHAS					122232	2222	32 32 22 1	\$2,982,088
					PURCHASE	PRICE	ITH PROF	-IT =		*******	******	1	5.00	X ====	\$2,285,124
					TOTAL PR	OFIT FR	M DEVELO	IPMENT							\$696,964

(8) 148-150 BEACON STREET

Although not completely solved from a layout perspective, the current thinking on these abutting buildings is to marry them together on a floor by floor basis to create extremely highend condominium units of extraordinary size and with magnificent detail. The first five floors will be converted to five four bedroom units and the lower level will become one studio and three one bedroom "garden level" units.

Both of these buildings are in good shape and the proposed conversion will allow a great deal of detail to be saved with a minimum amount of reconfiguration; the costs of preserving and matching the quality of wood and plaster work will be expensive. Other major costs include the addition of nine kitchens and as many a 24 bathrooms spread among these large units, all finished to a quality level commensurate with the existing character. Since the HVAC and the electrical service are new we anticipate relatively modest costs to reconfigure these functions. Lastly, the windows in 148 should be replaced with energy efficient substitutes.

The marketing perspective on these properties is all positive. The buildings have eye-catching facades that even stand out among an entire neighborhood of charming and historic buildings. The building was originally the home of Isabella Stuart Gardner and is currently known as the Fuller Mansion after former Governor Fuller who also resided there. The interiors are grand in scale and are magnificently and tastefully detailed. We feel that the resulting units in the form suggested would

represent a very unique offering for a Back Bay residence and would be potentially marketable to a limited number of people of substantial means who desire inner city living.

An alternative approach would be to leave 150 Beacon intact for sale to another institutional buyer, or extremely wealthy individual; its grand scale and architectural detail might be best served if a single buyer could be found.

PROPOSE	D USE:	2222	9 Un: ========	it Condominium	148-15() BEACON ST	REET				DATE:	06-Jul-85
Floor	Type:	st	1br	2br 4b	r Baths	Quality	Other		Area	Total Area	\$/SF	Sale Price
LL		1	3		4	luxury				3550	250	88 7500
1					1 4	ult-lux				4130	300	1239000
2					i 4	ult-lux				4560	300	1368000
3					1 4	ult-lux				4560	300	1368000
4					1 4	ult-lux				4560	300	1368000
5					1 4	ult-lux				2165	325	703625
Totals		1	3		5 24		Eff Ene	ic.:	68Z 53Z	23525 18265	294.7	6934125
				DEVELOP	MENT COST	SUMMARY						
				CONSTRU	CTION COS	5TS			******			
					TOTAL (GROSS SF =				34,432		
				FFFS	AT AVE	RAGE CONST.	COST OF			\$48.00	/SF	\$1,652,736
				1000	. ARCHI	TECTURE AND) ENG e			6.50	Z	\$107,428
					.DEVEL	DPMENT e				3.00	Z	\$192,873
					. LEGAL	AND ACCOUN	TING					\$10,000
					. CONDO	DOCUMENTS						\$10,000
				CONSTRU	CTION FI	NANCING (C)	() e			10.50	2	
					BASED (on Net Sale	ES PERCENT =	•		85.00	Z	
					BUILDI	NG PURCHASE	E AT			\$3,768,877		
					FINANCI	ED FOR				9	MONTHS	\$296,799
					CONSTR	UCTION LOAN	I BALANCE AT	Γ		\$2,850,374		
					DRAWN	DOWN FOR				9	MONTHS	\$112,233
					INTERE	ST DURING M	IRKTG. FOR			3	NONTHS	\$86,878
					FINANC	ING FEES @		•		1.00	7	\$66,193
				A 1110 J A 1	CLUSIN	6 CUSIS €				1.00	2	\$66,193
				AANUAL	PRUPERIT	INALS AND	INSUKANLE	20		5.00	L MONTUO	A147 011
				CONTINC	DUKIND	LUNSI. & P	IAKKEIING FL	JK = 7	J	12	NUN I HS	\$115,066
				LUN IND =======	ENLT 8 ========			76 0t ==========	develope	ent costs ===========	=======	\$133,720 ===========
				TOTAL D	EVELOPMEI	NT COSTS						\$2,850,374
					ALEARLE I	ARFA						27 525
				SALE PR	ICE PER	SDIIARE ENNI	(SP)					\$774 23
					PRESEN	T PRICE PER	SP. FT.			\$294.76		402 1120
					INFLAT	TON AT				10.00	7	
					HOLDIN	6 PERIOD				1	- vear	
				PARKING	SPACES			10 AT		\$20,000	,	\$200,000
				TOTAL S	ALES	==================	===============================		22282282	**********	******	\$7.877 579
					L FSS: S	FLITNG COST	IS AT			τ. ΔΔ	2	\$774 974
					DEVELO	PMENT COSTS	5				-	\$2,850,374
				CASH FL	OW BEFOR	e purchase	**********		22232222	1222 23255 53		\$4,942,338
				PURCHAS	E PRICE	NITH PROFIT	[=			15.00	2	\$3,768,877
				TOTAL P	ROFIT FR	om developi	1ENT		*========		1222	\$1,173,461

(10) 168 BEACON STREET

The unusual width of this building creates design and layout opportunities, but also some serious constraints. Lacking fire escapes out the front windows, the ability to subdivide the interior for less than full floor units is infeasible. In addition, it would be a shame to destroy the integrity of a few large, richly detailed rooms. Full floor units would measure approximately 1500 sqare feet, which is very large for a two bedroom unit, and three bedrooms will be difficult to fit due to the large room sizes and the relative lack of windows for the size of the building. A benefit of the full floor layout would be an increase in saleable area as the interior fire stair could be eliminated.

The property will require a substantial rehab, including new kitchens and baths, wiring, air conditioning and major brownstone restoration. There is a grand central stair that can be saved and still allow for some increase in usable area by reducing the width of interior halls. The elevator shaft is not well located, being on the opposite side of the building from the main entry and stairs, and probably requires all new equipment and cab.

A major unknown is the potential to reuse the existing carriage house extension for 4-6 garage spaces, or alternatively, tear it down to provide a greater number (perhaps 8-10) outdoor spaces. We have assumed the full floor approach for the purposes of this exercise, recognizing that further cost-benefit analysis is necessary. We expect that this would be a highly desirable property to the luxury buyer if the parking situation is worked out and high quality finishes are used throughout.

PROPOSE	D USE		6 Ui 	nit Cond	loniniun	168 BEA	CON STRE	ET						DATE:	06-Jul-85
Floor	Туре	st st	lbr	2br	3br	Baths	Quality	v Oth	er	*******	Area	Total	Area	\$/SF	Sale Price
LL/1				2		4	luxury	duple	xes				2910	200	582000
2				1		2	luxury	floor	through				1 50 0	225	3 37500
3				1		2	luxury	floor	through				1500	225	337500
4				1		2	luxury	floor	through				1500	240	360000
L				1		2	luxury	†100r	through				1500	250	375000
Totals			****	6		12	******		Effic.	 . :	63	52	89 10	223.5	1992000
					DEVELOPH	ENT COST	SUMMARY	,	Enerse	on:	53	52	750 0		
					CONSTRUC	TION COS	TS								****
						TOTAL E	ROSS INT	ERIOR	SF =			1	4,056		
						AT AVER	AGE CONS	IT. COS	t of			\$	30.38	/SF	\$427,000
					FEES	450011			-						
						ARCHI	ECTURE A	IND ENG	e				6.50	1	\$27,755
						I COAL	AND ACCO						3.00	2	\$56,603
						CONDO	MACHINENT	IUNIINO C							\$10,000
					CONSTRUC	TION FI	IANCING ((CI) 🖡					10 50	7	\$10,000
						BASED (IN NET SA	LES PE	RCENT =				85.00	ĩ	
						BUILDIN	IG PURCHA	SE AT				\$1.15	52.730	-	
						FINANCE	D FOR					,	' 9	MONTHS	\$90,777
						CONSTRU	ICTION LO	dan bal	ANCE AT			\$78	39,847		·
						DRAWN I	OWN FOR						9	MONTHS	\$31,100
						INTERES	ST DURINE	NRKT6	. FOR				3	MONTHS	\$25,496
						FINANCI	NG FEES	ê					1.00	2	\$19,426
						CLUSINE	i COSTS (1.00	7	\$19,426
					ANNUAL PI	DUDINC	IRAES AN	IN THE	KANCE				3.00	7. MONTUR	
					CONTINCE	DOKING.	LUNSI. 8	(NAKKE	IING FUK	54 01	dawa) ar		12	HUNTHS	i \$34,582
								======	==================	J4 OT ========	======= aevel of	ment co)STS :=====	3222223	\$37,608 ===========
					TOTAL DEV	lelophen (Less f	IT COSTS	PRICE)							\$789,84 7
					TOTAL SAI	LEABLE A	REA								8,910
					SALE PRI	CE PER S	QUARE FO	IOT (SP)						\$245.93
						PRESENT	PRICE P	YER SQ.	FT.			\$2	23.57		
						INFLATI	UN AL						10.00	2	
						HULVING	PERIOD			8 AT		A 7	1	year	***
					=========	97 MGE 3 5222222	*******			7 MI =========	======	2≮ ========	=====	======	\$80,000 ===========
					TOTAL SAL	ES									\$2,271,200
						LESS: SE	LLING CO	ISTS AT					3.00	2	\$68,136
						VEVELUF) 5 :======							\$789,847
					CASH FLO	BEFORE	PURCHAS	E							\$1,493,217
					PURCHASE	PRICE W	ITH PROF	IT =	==================	**===	222223		15.00	% =======	\$1,152,730
					TOTAL PRO	FIT FRO	M DEVELO	PHENT							\$340,487

(11) 534 BEACON STREET

This building will require moderate to extensive interior reconfiguration because it was originally designed for hotel use and has undergone subsequent modifications of slight but unknown extent for its current use as a dormitory. The floor layouts are identical from the second through the tenth levels and are served by dual elevators and a staircase core that is located in the east end of the building.

These floors are flexible and can accommodate a variety of unit types and sizes as follows:

Option	Studio	lbr	2BR
1	1		3
2		5	
3	1	3	1
4		2	2

The choice of unit mix will determine the extent of the interior reconfiguration and ultimately a major portion of the conversion cost. The balance of cost will come from the addition of kitchens and bathrooms, air conditioning, and redistribution of the heating and electrical services. It also appears that energy efficient window replacement is required.

The best market mix would be option 3 which would provide a total of 46 units counting an additional single bedroom on the ground floor. The balance of the ground floor should be given over to services such as security, reception, and an exercise room.

Marketing negatives are the building's location in a block with a heavy student population and its adjacency to a Storrow Drive entrance road and the elevated Route 1 access ramp. These could be mitigated by removing the unattractive lateral building addition in the front to create a setback from the street which would allow attractive landscaping to be installed. Additionally, it would be desirable to remove the back wing housing the current cafeteria to make way for a parking deck with an estimated capacity for 27 cars. The location of the Storrow Drive entrance ramp means this may be difficult to get approved.

The building offers river and city views, but would not command top of the market prices because the central corridor on each floor will be double-loaded and will force the unit configuration to be narrow and rectangular instead of square. However, we think this building, after conversion, would be attractive to the young professional market that continues to seek Back Bay residence.

PROPOSE	D USE:		55 Un	it Cond	lominium	534 BE4	CON STREE	T				DATE:	06-Jul- 8 5
Floor	Туре	: st	1br	2br	3br	Baths	Quality	Other		Area	Total Area	\$/SF	Sale Price
LL 1 2-10		1	3	1 2		2 72	mid-lux mid-lux			4 726/f1	700 42534	175 225	12 250 0 9570150
avg siz	e 												
Totals		9	27	19	DEVELOPME	74 Ent cost	Sunna ry	Ef En	fic.: erson:	702 672	43234 41552	224.1	96926 50
					CONSTRUCT	TOTAL 6	STS SROSS SF =				61,618		60 4/4 300
					FEES	AT AVER ARCHIN DEVELO LEGAL CONDO	RAGE CONST FECTURE AN OPHENT Q AND ACCOU DOCUMENTS NANCING (C	. COST OF D Eng Q Nting I) Q			\$40.00 6.50 3.00 10.50	/SF L L	\$2,464,720 \$160,207 \$269,094 \$10,000 \$10,000
						BASED (BUILDI) FINANCE CONSTRU DRAWN I	JN NET SAL NG PURCHAS ED FOR JCTION LOA DOWN FOR	ES PERCENT E AT N BALANCE A	= \T		85.00 \$5,100,468 9 \$4,134,639 9	MONTHS Months	\$401,662 \$162,801
					ANNUAL PF	FINANCI CLOSING ROPERTY DURING	ING FEES & G COSTS & Taxes and Const. &	INSURANCE MARKETING F	OR 52 of	developm	3 1.00 1.00 3.00 12 ent costs	NONTHS	\$121,211 \$92,351 \$92,351 \$153,014 \$196,871
					TOTAL DEV	VELOPNEN (LESS /	NT COSTS Purchase P Area	======= RICE)					\$4,134,639 43.234
					SALE PRIC	CE PER S PRESENT INFLATE HOLDING SPACES	SQUARE FOO T PRICE PE Ion at G Period	T (SP) R SQ. FT.	27 AT		\$224.19 10.00 1 \$10,000	ž year	\$246.61 \$270,000
					total sai	LES LESS:SI DEVELO	ELLING COS Phent cost	TS AT S			3.00		\$10,931,915 \$327,957 \$4,134,639
					CASH FLO	BEFOR	e purchase	22222222323	:222223222	532228 222		======	\$6,739,318
					PURCHASE	PRICE	WITH PROFI	T =			15. 0 0	Z	\$5,100,468
					TOTAL PRI	DFIT FR	ON DEVELOP	NENT				511 28 22	\$1,638,851

(12) 535 BEACON STREET

As the largest property in the group, with 125,000 square feet, the sheer size of 535 Beacon places it into a realm of sophistication in terms of marketing and design feasibility that extends beyond the scope of this study. Based on a pass through the building and review of floor plans, however, we felt confident enough to draw some conclusions. The location and severe lack of parking are the primary marketing difficulties. The water and city views may provide some additional value, but it is impossible to quantify and the views are limited to less than half of the saleable area.

The typical floor configuration seems to work fairly well for condominiums, and most units can be created by combining existing rooms and, therefore, relatively minor interior redesign. In addition, there should be great flexibility to vary the unit mix according to any marketing requirement. The long, double loaded corridors, with as many as 21 units per floor, are not good for condominium use, however. The corridor in the south wing is quite narrow and should be widened.

Currently served by only one centrally located elevator, a more attractive but expensive approach would be to use the three existing street entrances to create three separate addresses, each with its own lobby and elevator core. Another difficulty are internal fire stairs: at least one, and probably more, will need to be added if the building were, in effect, subdivided. Many units would have exposure into the interior courtyard and alley only, though skyline views would emerge at the fourth floor. Much

of the central portion of first floor, currently devoted to "usable" common space would not be saleable in a condominium conversion, though potentially usable space for some amenities. The ornate tilework on much of the first floor is unusual, and of questionable appeal to modern tastes. A major unknown is the amount of saleable basement space, much of which is devoted to mechanical rooms, and some of which was formerly a horse stable.

Although Emerson has undertaken an improvement program, including new windows in much of the property and fire safety improvements, the building will still need substantial rehabilitation for any residential use including: new kitchens and baths, new flooring, new HVAC, wiring, new common area finishes, and some major exterior facade work, particularly on the Marlborough St. side. The interior courtyard will require some creative work, with the potential to become an amenity, rather than an eyesore.

A significant opportunity may exist to add space to the sixth and seventh floors, which do not currently extend all the way around the south side of the property, and the eigth floor, which is currently limited to just a small area. Up to 11,500 square feet of additional saleable square footage is potentially available. (By our estimate, though, it would still bring the total saleable area to 96,500, which is well below Emerson's calculation of net saleable area in the building. Further discussion of this discrepancy follows below.) The feasibility of the expansion is indeterminable without an engineering study of the structure, and might be further limited by Back Bay architectural approvals.

The market for this units in this building is likely to be

at the lower end of the Back Bay price range. Any residential use for the building is going to require an expensive rehabilitation, but the extra cost of a totally first class restoration is probably not justified given the marginal location and parking constraints. All potential alternatives should be explored to ameliorate this situation, including putting cars in the basement. Though very expensive, the cost is probably justified by the resulting increase in value to the building. The unit mix for a condominium conversion should be heavily weighted to very small studio, one and two bedroom units, with the goal of making them as affordable as possible for a buyer who might ordinarily be priced out of the Back Bay altogether. Fortunately, the existing configuration is pretty well suited for such use.

PROPOSE	D USE:	134 Ur	nit Cond	ominium	535 BE	ACON STRE	ET						DATE:	06-Jul-85
Floor	Type: st	lbr	2br	3br	Baths	Quality	Other		Area	====	Total	Area	\$/SF	Sale Price
LL	2	7	2			aid						7500	175	1312500
1-2	2	11	4			aid			12000/fl			24000	20 0	48 00000
3-5	2	9	4			mid			11000/fl			3 300 0	210	6930000
6-7	2	7	3			aid			9000/fl			1 800 0	225	4050000
8	0	2	1			aid						2 50 0	250	62500 0
additio	n 2 	11 	4			mid-lux	new cons	tr.				11500	250	2875000
Totals	18	83	33	0	167			Effic.: Emerson:	ł	77% 88%	1	96500 09743	213.3	205925 00
				DEVELOPH	ENT COST	T SUMMARY								
				CONSTRUCT	TION COS	STS								
					IUIAL (GRUSS SF	=	-			12	5,000		
				FEES	AI AVE	RAGE CONS	I. COST O	F			\$	50.00	/SF	\$6,250,000
					.ARCHI	FECTURE A	ND ENG e					6.50	7.	\$406,250
					.DEVEL	OPMENT e						3.00	Z	\$541,295
					.LEGAL	AND ACCO	UNTING							\$10,000
					. CONDO	DOCUMENT	S							\$10,000
				CONSTRUCT	FION FI	NANCING (CI) e					10.50	2	
					BASED (jn net sa	LES PERCE	NT =				85.00	2	
					BUILDI	NG PURCHA	SE AT				\$8,93	2,440		
					FINANUL	ED FUK		-				9 7 005	MONTHS	\$703,430
					DOANN 1	UCIIUM LU Noun cod	HA DHLANL	E HI			¥7,04	3,783	MONTUR	A770 770
					INTEDCI	TUMM FUN Et niidtne		'OD				7	MONTUC	+ +3/4,/32
					FINANCI	DI VUNING	- AKK 10. F	UN				1 00	- 1101 1115 4	+105 7/A
					CI OCTNI	LNO FEED C FORTE A	E					1.00	£ 4	¥105 7/4
					OPERTV	TAYES AN		rc				7 00	4 7	≯183,704
					DURING	CONST. 1	MARKETIN	IG FNR				3.00	MONTUC	¢717 077
			1	CONTINGE	NCY E				5% of deve	lopae	ent co	sts	nowing	\$459,201
				TOTAL DEV	/Elopnei	NT COSTS	X32222222	*******		====:	22229	22222	2222223	\$9,643,985
					(LESS	PURCHASE	PRICE)							
				TOTAL SAU	LEABLE	AREA								96,500
				SALE PRIC	CE PER !	SQUARE FO	OT (SP)							\$234.73
					PRESEN	T PRICE P	ER SQ. FT	•			\$2	13.39		
					INFLAT	LON AT						10.00	Z	
					HOLDIN	6 PERIOD						1	year	
				PARKING S	5PACES ======)) AT ==========	= = = = = =	\$2 =====	0,000 =====	2022222	\$0 ==========
				total sal	ES									\$22,651,750
					LESS: SI	ELLING CO	STS AT					3.00	7	\$679,55 3
				********	DEVELO	PMENT COS	TS =========			=====		3 252=	138 2222	\$9,643,985
			1	CASH FLO	BEFORE	E PURCHAS	E							\$12,328,213
				PURCHASE	PRICE	ITH PROF	IT = ===========		52522222***	****		15.00	7.	\$8,932,440
				TOTAL PRO	OFIT FRO	DH DEVELO	PMENT							\$3,395,772

(13) 21 COMMONWEALTH AVENUE

This building will be converted to two garden level front and back studios and four floor through two bedroom units above. As is typical, major costs will include the addition of kitchens and bathrooms with the associated plumbing and the partitioning required to secure each unit and configure it for efficient use. Except for the wide and long entrance foyer, the first floor can be captured as a floor through by incurring the cost to turn an L-shaped stairway, that currently bisects this floor, into a Ushape that faces toward the entrance foyer. Redistribution cost for HVAC and an upgraded electrical service will also be substantive expenses.

The building facade and stairs are brownstone and are deteriorated enough to require restoration. This item alone can add 5 to 7 dollars per square foot to the renovation cost of the building. The remaining cost of significance is for the replacement of existing windows with energy efficient substitutes of similar appearance.

This building should market well since it offers relatively spacious units with nice detail that are a stones throw from the Public Garden. In addition, it is on the sunny side of the street, which is a value plus.

The major negative is the availability of no more than three parking spaces.

PROPOSE	ED USE:		6 Un:	it Cond	ominium	21 COM	IONWEALTH A	VENUE						DATE:	06-Jul-85
Floor	Type:	st	İbr	2br	3br	Baths	Quality	Other		Area		lotal	Area	\$/SF	Sale Price
LL	-	2				2	luxury			_			1172	175	205100
1			1			2	luxury						1390	250	347500
2	2		1			2	luxury						1640	250	410000
3	3		1			2	luxury						1640	250	410000
1	4		1			2	luxury						1160	275	319000
Total	 5	2	4			10			Effic.:		76%		7002	241.5	16916 00
					DEVELOPN	ENT COS	r Summary	1	E eerson:		667		6100		
					CONSTRUC	TION CO	 STS							ص من حد باد <u>حد حد ب</u> و	
						TOTAL	GROSS SF =					ę	9,269		
						AT AVE	RAGE CONST.	. COST OF				\$3	39.27	/SF	\$364, 000
					FEES	-		5 FNO 8							AD7 //A
						AKCHI	ILLIUKL AN	U ENG E					5.30	4 9	¥23,000
						I FEAL	AND ACCOU	NTINC					3.00	4	**/,0*0 \$10 000
						CONDO	AACHNENTS	01110							\$10,000
					CONSTRUC	TION FI	NANCING (C	T) 8					10.50)Z	***;***
						BASED	on net sal	ES PERCEN	T =			1	85.00	7	
						BUILDI	NG PURCHAS	E AT				\$96	2,465	i	
						FINANC	ED FOR						ʻ 9	MONTHS	\$75,794
						CONSTR	UCTION LOA	N BALANCE	AT			\$67	2,722	2	
						DRAWN	DOWN FOR						9	MONTHS	\$26,488
						INTERE	ST DURING	MRKTG. FO	R				3	5 MONTHS	\$21,462
						FINANC	ING FEES O			•			1.00	2	\$16,352
						CLOSIN	e costs e						1.00)%	\$16,352
					ANNUAL F	PROPERTY	TAXES AND	INSURANC	E				3.00)%	
						DURING	CONST. &	MARKETING	i FOR				12	2 MONTHS	5 \$28,8/4
						ENCY 8 ======	2222222222			5% of deve	eiop ae ======	nt co =====	sts =====		\$32,031
					TOTAL DE	EVELOPHE (Less	nt costs Purchase p	RICE)							\$672,722
					TOTAL SA	ALEABLE	AREA								7,002
					SALE PRI	ICE PER	SQUARE FOO	T (SP)							\$265.75
						PRESEN	T PRICE PE	R SQ. FT.				\$2	41.59	7	
						INFLAT	ION AT						10.00)Z	
						HOLDIN	6 PERIOD		_				1	year	
					PARKING	SPACES		232228222	; :========:	5 A (============		\$2 ======	0,000 ==J==) =========	\$60,000 =========
					TOTAL SA	ALES									\$1,920,760
						LESS: S	ELLING COS	TS AT					3.00) z	\$57,623
						DEVELO	PMENT COST	S =========							\$672,722
					CASH FLO	DW BEFOR	e purchase								\$1,250,415
					PURCHAS	E PRICE	WITH PROFI	T =					15.00)%	\$962,465
					TOTAL PI	ROFIT FR	OM DEVELOP	MENT							\$287,951

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(14) 355 COMMONWEALTH AVENUE

This property currently houses Bildner's upscale minisupermarket, Emerson College offices, and a non-affilifated corporate tenant. When Emerson vacates the building the newly available space is intended to be leased as commercial office space on an as is basis. Since the interior is highly detailed and in what appears to be mint condition and the attractively detailed exterior is in good condition no costs of a structural nature are anticipated for this building. The very large, ornate rooms and central core create a rather inefficient layout, but it would be a crime to alter them in any way. There is the potential for energy efficient replacement of windows and, minimally, the addition of storm windows.

As previously mentioned, due primarly to a time constraint, we did not do an in-depth analysis of development opportunities or determine a current value of this property.

CONCLUSIONS

A number of observations about the Development Plan Summary on page 135 should be made. The gross area estimates were provided by Emerson College, while the net area figures are our estimates of the actual saleable area in the buildings following redesign and renovation, as described in the development plans above. In a number of cases the plans from which we were working had been reduced from their original size, and the actual saleable space is likely to change upon closer evaluation of the properties, so the estimates are to be taken only as a rough quide. Our saleable space estimate is 6,070 square feet higher than the estimate contained in an Emerson document ("Draft Reevaluation of Property", Dan Posnansky, Director of Construction, to George Broadbent, V.P. for Business & Finance, March 1, 1985), and the overall efficiency of the buildings is projected to be 74%, versus Emerson's 73%. Our estimate for most buildings represents a significant increase in efficiency but, as previously noted, the figure for the largest property, 535 Beacon, is 13,243 below the Emerson estimate, even after we added 11,500 square feet of new space on the upper floors. Unless we measured incorrectly, the lower saleable area we find from the drawings makes a significant negative impact on our estimate of value. (The value would be \$1,200,000 higher using Emerson's efficiency factor, assuming an average 1985 selling price of \$225/SF for the additional area.) The 88% efficiency estimate in Emerson's figures, however, seems very high compared with most buildings, and a significant portion of currently "usable" space on the first floor will not be saleable.

The next two summary columns indicate the projected selling price for the completed space for 1985, on a net saleable basis, and for 1986, which represents our estimate of a 10% increase over current values. Construction and total development costs (excluding acquisition) follow, on both a net and gross basis. Finally, the estimated 1985 value for the properties is indicated, again on a net and gross basis. A \$3.2 million value for 355 Commonwealth is added, based on Emerson's recent estimate, and the total value of the group of properties is compared with Emerson's total, both figures from the "Draft Reevaluation... " referenced above. The indicated total value of the properties is approximately \$38.9 million, \$6.2 million below Emerson's March 1985 estimate of \$45.1 million. The great majority of the difference in values is attributed to much lower estimates for two buildings: 535 and 100 Beacon. There is a \$3.1 and \$2.3 million difference between ours and Emerson's estimate for these buildings, representing a 26% and 31% variation respectively in estimated values.

The "Unit Count Summary", also on page 135, shows the unit mix from each building as currently envisioned. The distribution of units fits the distribution we found in the Condex sales data almost exactly. It also shows that about 70 percent, or 242 of the 346 total units would be located in the three largest properties: 100 Beacon, and 534 and 535 Beacon.

The "Base Case Assumptions" indicate the values used for these key variables to generate the summary table. The "Construction Cost" and "Building Efficiency" figures are factors

built-in to the computer model that allow us to easily vary these items while doing "what if?" analyses. "100%" means that we have used 100% of the original estimate; to test what a 10% increase in construction costs would do to the overall value, we would put in "110%". The "Profit on Gross Sales" figure of 15% is our estimate of the likely minimum profit margin acceptable to a developer, though the large size of the project might suggest a smaller margin is possible. A potential constraint, however, is a common financing rule of thumb among lenders that usually requires a 25% or higher gross profit margin, based on the perceived highrisk nature of condominium projects.

On page 136, we show a number of sensitivity tables that demonstrate the range of values one might expect for the properties if one wished to change two of the variables simultaneously. The results of the first three tables express the expected value as a function of changes in construction costs and the anticipated inflation of property values. They indicate that the value one places on the properties is highly dependent upon one's expectation of inflation of property values: every 5% of anticipated inflation translates into approximately 5% increase in value. The value is less sensitive but still significantly impacted by variation in construction costs: a 10% change in costs translates into approximately 4.5 - 5% change in value. An important result, we believe, is that when one considers a 30% inflation rate combined with 30% lower costs, the indicated value is still only \$54 million. This would mean a 1986 average selling price of \$299/NSF and construction costs of \$31.50/GSF, neither of which we believe to be possible.

The last table shows the sensitivity of values to changes in the interest rate paid on construction financing. It indicates some sensitivity to interest rate changes, approximately a 1.4% decrease in value for every 1% increase in rate. It does not take into account, however, the impact that higher mortgage rates might have on the demand for condominiums or on property values.

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BUILDING:	GROSS SF	NET Sf	EFF1CIENCY (NSF/OSF)	AVG 1985 Price/NSF	AVG 1986 PRICE/NSF	TOTAL Sales	CONSTR. \$/GSF	CONSTR. \$/NSF	TOTAL Constr.	TOTAL DEV Cost/GSF	TOTAL DEV Cost/NSF	TOTAL Dev	1985 VALUE \$/65F	1985 VALUE \$/NSF	EST. VALU 1985
67 BRINNER	24,682	16,590	672	236.90	260.60	4,323,275	50.00	74.39	1,234,100	77.45	115.23	1,911,638	69.14	102.87	1,706,62
96 BEACON	15,619	11,600	74%	225.52	248.07	2,877,600	38.73	52.16	605,000	67.70	91.16	1,057,433	88.05	118.56	1,375,25
100 BEACON	48,268	38,500	802	236.26	259.89	10,005,600	35.63	44.68	1,720,000	66.76	83.70	3,222,604	107.76	135.10	5.201.26
126/28/30 BEACON	38,956	28,650	742	227.94	250.74	7,183,660	55.00	74.78	2,142,580	B4.40	114.76	3,287,825	74.30	101.03	2,894,60
143/45 BEACON	16,896	13,030	771	206.14	226.75	2,954,600	34.68	44.97	586,000	62.04	80.45	1,040,201	85.68	111.10	1,447,63
303 BERKELEY	8,566	6,500	761	234.27	257.70	1,675,025	36.42	48.00	312,000	69.23	91.23	593,021	103.88	136.90	889.84
132/34 BEACON	20,016	15,800	792	252.53	277.78	4,389,000	52.06	65.95	1,042,000	89.30	113.13	1,787,442	114.16	144.63	2,285,124
148/50 BEACON	34,432	23,525	687	294.76	324.23	7,627,538	48.00	70.25	1,652,736	82.78	121.16	2,850,374	107.46	160.21	3,768,87
168 BEACON	14,054	8,910	632	223.57	245.93	2,191,200	30.38	47.92	427,000	56.19	88.65	789,847	82.01	129.37	1,152,730
534 BEACON	61,619	43,234	702	224.19	246.61	10,661,915	40.00	57.01	2,464,720	67.10	95.63	4.134.639	82.78	117.97	5,100,46
535 BEACON	125,000	96,500	772	213.39	234.73	22,651,750	50.00	64.77	6,250,000	77.15	99.94	9,643,985	71.46	92.56	8,932,44(
21 COMMONWEALTH	9,269	7,002	761	241.59	265.75	1,860,760	39.27	51.99	364,000	72.58	76.08	672,722	103.84	137.46	962,465
SUB-TOTAL	417,378	309,841	742	230.04	253.04	78,401,923	45.04	60.68	18,800,136	74.27	100.05	30,999,730	85.58	115.28	35,717,334
355 Conhonnealth	29,608	21,510	732	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	108.08	148.77	3,200,000
TOTAL	446,986	331,351	741								*****		87.07	117.45	38,917,334
EHERSON EST (3/85)	446.986	325.281	732										100.84	138.57	45.075.000

UNIT COUNT SUMMARY	STUD10	1 BDRN	ZBORN	3+BDRM	TOTALS
69 BRINNER	3	7	8	1	19
96 BEACON	0	0	7	0	7
100 BEACON	10	14	29	0	53
126/28/30 BEACON	3	12	12	3	30
143/45 BEACON	2	1	4	4	11
303 BERKELEY	0	1	5	0	6
132/34 BEACON	0	0	6	4	10
148/50 BEACON	1	3	0	5	9
168 BEACON	0	0	6	0	6
534 BEACON	9	27	19	0	55
535 BEACON	18	83	33	0	134
21 CONNONNEALTH	2	4	0	0	6
TOTAL	48	152	129	17	346
PERCENT OF TOTAL	142	44X	372	51	

DEVELOPMENT PLAN SUMMARY

BASE CASE ASSUMPTIONS:	
CONSTRUCTION LOAN RATE:	10.502
ANNUAL INFLATION RATE:	10.007
PROFIT ON GROSS SALES:	15.007
CONSTRUCTION COST ADJ.:	100.007
BLDG EFFICIENCY ADJ.:	100.001
HOLDING PERIOD:	1

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SENSITIVITY TABLES

				INFLAT	ION RA	TE		
	+AC862	07.	5%	102	157	20%	25%	30%
C	70%	39,940,195	41,998,823	44,432,008	46,865,193	49,298,377	51,731,562	54,164,747
0	802	38,014,710	40,446,819	42,880,003	45,313,188	47,746,373	50,179,558	52,612,742
S	90%	36,055,641	38,488,850	40,922,035	43,355,220	45,788,405	48,221,589	50,654,774
Т	100%	34,096,059	36,529,244	38,962,429	41,395,614	43,828,799	46,261,983	48,695,168
	1102	32,136,477	34,569,662	37,002,847	39,436,032	41,867,216	44,302,401	46,735,586
A	120%	30,176,895	32,610,080	35,043,265	37,476,450	39,909,634	42,342,819	44,776,004
D	130%	28,217,314	30,650,498	33,083,683	35,516,868	37,950,053	40,383,237	42,816,422
J								

SENSITIVITY OF TOTAL 1985 VALUE TO INFL RATE AND CONSTR. COSTS

SENSITIVITY OF TOTAL 1985 VALUE/6SF TO INFL RATE AND CONSTR. COSTS

	INFLATION RATE							
		0%	52	102	157	20%	25%	302
С	70%	89.35	93.96	99.40	104.85	110.29	115.73	121.18
0	80%	85.05	90.49	95.9 3	101.37	106.82	112.26	117.71
S	90%	80.66	86.11	91.55	96.99	102.44	107.88	113.33
T	1002	76.28	81.72	87.17	92.61	98.05	103.50	108.94
	1107	71.90	77.34	82.78	88.23	93.67	99.11	104.56
A	120%	67.51	72.96	78.40	83.84	89.29	94.73	100.17
D	130%	63.13	68.57	74.02	79.46	84.90	90.35	95.79
J								

SENSITIVITY OF TOTAL 1985 VALUE/NSF TO INFL RATE AND CONSTR. COSTS

		INFLATION RATE						
		0%	5%	107	152	20%	25%	302
C	70%	120.54	126.75	134.09	141.44	148.78	156.12	163.47
0	80%	114.73	122.07	129.41	136.75	144.10	151.44	158.78
S	90%	108.81	116.16	123.50	130.84	138.19	145.53	152.87
T	1002	102.90	110.24	117.59	124.93	132.27	139.62	146.96
	110%	96.99	104.33	111.67	119.02	126.36	133.70	141.05
Α	120%	91.07	98.42	105.76	113.10	120.45	127.79	135.13
D	130%	85.16	92.50	99.84	107.19	114.53	121.87	129.22
J								

SENSITIVITY OF TOTAL 1985 VALUE TO INTEREST RATE AND CONSTR. COSTS

		•	1	LNTERES	ST RATE			
	+AC862	9.5%	10.52	11.52	12.5%	13.5%	14.5%	15.5%
0	70%	45,146,023	44,512,333	43,999,889	43,488,959	42,979,523	42,471,563	41,965,062
0	807	43,348,842	42,880,409	42,415,706	41,954,644	41,497,159	41,043,187	40,592,662
5	902	41,382,850	40,922,031	40,464,966	40,011,625	39,561,974	39,115,980	38,673,608
T	100%	39,416,043	38,962,429	38,512,520	38,066,282	37,623,678	37,184,676	36,749,242
	1102	37,449,243	37,002,847	36,560,104	36,120,978	35,685,436	35,253,443	34,824,968
A	120%	35,482,442	35,043,265	34,607,688	34,175,675	33,747,195	33, 322, 213	32,900,698
D	130%	33,515,642	33,083,683	32,655,271	32,230,373	31,808,954	31,390,983	30,976,428

(B) APPROVAL PROCESS

(1) LEGAL AND ZONING ISSUES

The current zoning for most of the Emerson College properties is H-3-65 which is an apartment type residential use allowing a floor-to-area ratio of 3 to 1 and a maximum height of 65 feet. (69 Brimmer Street and 96 Beacon fall under the zoning in Beacon Hill, H-2-65, which is the same except for a 2 to 1 floor-to-area ratio.) Allowed uses under this zoning classification relevant to this study include apartments, single or multi-family residential, and convalescent, nursing, or rest homes with certain conditions.

There is no special permitting or variance requirement for conversion to residential condominium or rental uses. Since all of the properties, with the exception of 355 Commonwealth Avenue are currently destined for residential use, we foresee no zoning problems or issues whatsoever. The conversion and subsequent sale of the space would only require the standard building permits and the drawing up of a condominium master deed.

The single restriction on 355 Commonwealth Avenue would be that some uses would require the permission of the Park Department because the building is less than one hundred feet from a park.

We are further advised that continued use as a dormitory, which is treated as a boarding house under the code, involves no special requirements, since it would merely be a continuation of an established use.

(2) NEIGHBORHOOD ISSUES

The Neighborhood Association of Back Bay (NABB) is a highly organized association that is approximately 30 years old. It was organized in response to a proposal to widen Hereford Street to major connector size. Its 1400 members pay an annual dues that averages \$20 and they also run several fund raising events to generate the resouces needed to support and protect their interests.

NABB's overall goal is to make its neighborhood more residential by maximizing its long term housing supply. The organization prefers to focus on common interest issues affecting life quality and avoid economic issues such as a contention over rental versus condominium usage which could tend to split the organization.

Development is the current principal issue since there is major concern over the traffic that it eventually brings to the neighborhood. The planned New England Life development for the Berkeley/Clarendon Street block between Boylston and St. James Streets is of great concern to the neighborhood for this reason.

Institutional expansion in the area is also a major issue since NABB feels that the extent of institutional expansion directly impacts the quality of the neighborhood. NABB considers the large presence of institutions, like Emerson College which has over 90% of its facilities located in the Back Bay, to be generally non-compatible with the residential neighborhood, and strongly resists their further expansion. The organization also expresses the concerns of more typical neighborhoods over the number of restaurants and liquor licenses that are active within their boundaries.

Clearly NABB would support conversion of all the Emerson College properties to condominium or rental forms of standard or elderly residential use. Converting one or more of the larger dormitory structures to hotel use or reusing them as B.U. or MIT residences would promote serious neighborhood opposition. Further, since these larger buildings are in the 500 block which NABB considers the worst in Beacon Street from a neighborhood point of view, there is additional impetus for residential conversion to start the process of bringing it back.

(D) MISCELLANEOUS

(1) BOSTON'S WATER TABLE PROBLEM

The lower portion of Beacon Hill and all of the Back Bay were originally tidal marsh land. From 1858 through 1880 this land was filled in through a massive earth moving project. Much of the fill came from Beacon Hill itself causing a substantial reduction in its size, however, the bulk of the fill was brought in, via a specially built railroad line, from the town of Needham.

As one might note from the orderly geometric pattern of the streets and structures in these neighborhoods, this was one of the few areas in Boston that was master planned. The through streets are four to five lanes wide and contain longer blocks of uniform structures that are typically capped with larger buildings at the corners. The cross streets are narrower and contain shorter blocks with little structure frontage on them.

Due to the relative instability of filled tidal marsh land,

piles must be driven down to bedrock to support and prevent movement of structural foundations. In the late 1800's the trimmed off trunks of spruce and oak trees were normally used as piles. These wooden piles were submerged below the water table and could be expected to last hundreds of years since there would be no exposure to air which would support a rotting process.

Studies of the water table level conducted by the U.S. Department of the Interior from 1942 to 1975 and by the Haley and Aldrich Engineering firm for the Boston Redevelopment Authority indicate that, for years, the water table went up and down with the tides. However, both the tidal effect and the water table level have changed to a piont where the wooden piles have been exposed in several areas and a rotting process is in progress.

It is not known for sure what has caused the lowering of the water level underground, but the following are several suspected causes:

- the efficiency of the Prison Point Pumping Station, built in 1981, places strees on older, cracked pipes in the sewer and water systems causing the infiltration of ground water and a reduction in the overall water table.
- leakage into tunnels and highway underpasses,
 followed by pumping and dewatering.
- large construction projects such as the Common
 Garage, the John Hancock, and the Prudential

- . the building of Storrow Drive
- . the MBTA tunnels

The city of Boston's Inspectional Services Department (ISD) issued notices to owners of several Brimmer Street buildings (Beacon Hill) in June of 1985 requiring permits to be obtained within five days to either repair the foundations or raze the buildings. The ISD adjudged that these buildings were so badly damaged as to cause a serious threat to the public health and safety.

The issue is heating up and getting increasingly more public attention. City Councilor David Scondras, in whose district the problem resides, is making a concerted effort to evaluate the severity of the problem, identify and corrent the causes of the lowered water table, and obtain the funds required to repair damaged foundations.

If not corrected, the problem has real potential to be an economic disaster. The cost of replacing the rotted piles with concrete fill is estimated to be \$1000 per lineal foot of wall or up to \$250,000 per building.

This section is included in the study to perform the function of a caveat. The purchase of 18 buildings in an area of the city where there is evidence of a serious problem of unknown scope and intensity must be carefully considered from the following two points of view:

 To what extent has there been deterioration of the pile system supporting these or other nearby struc

tures.

2. What assurances can be found to be reasonably convinced that today's benign situation will not be reversed in the future.

V. DEVELOPMENT AND ACQUISITION STRATEGIES

(A) DEVELOPMENT STRATEGIES

The development of the Emerson College properties involves special risks and opportunities due to the volume of space involved. Among the opportunities is the grouping and layout of several of the buildings, as we have already noted, which provides a great deal of flexibility for choosing a mix of apartment sizes and layouts. In addition, a developer of the entire group of properties should be in a good position to get relatively good terms on construction, financing and marketing costs, and the near proximity of buildings should make project management less difficult than one might expect for development of such a large number of buildings.

The properties potentially represent as many as 350 condominium units, however, which would probably equal a six to ten month supply if there were no other competition from other conversions and resales. In addition, the absorption rate in the past has included resales and many lower priced units, implying that the absorption of this volume of units concentrated in the higher price ranges would likely take much longer. Given the liklihood that there would be a similar volume of new and resale competition in the immediate area as we have seen in the recent past, and a number of market rate projects coming on line in nearby neighborhoods, issues of product mix and market timing will be very important.

Since the figures from the market analysis did not indicate any unit type particularly underserved, the unit mix projected in

our development summary, which is heavily weighted toward one and two bedroom apartments, would appear appropriate. The timing of the marketing of the units is of greater concern; it seems clear that a phased development program, perhaps over as long as two to three years, would be very desirable. The danger, of course, is that once the construction is complete the financing costs of carrying unsold units can eat up the profit in a matter of months, and prices will have to drop if too large an inventory is placed on the market at one time. Given the importance of achieving top prices for these properties, a strategy of phasing of acquisition and development of the buildings is the best way to assure absorption at a timely pace, without inordinately high carrying costs.

A second strategy, which may provide more value to Emerson while reducing the risk to the developer, is to sell or develop a number of the properties for other uses. The dormitory alternative for 534 and/or 535 Beacon will probably provide a price at least equal, and possibly much higher, than the condominium value we have derived: with relatively minimal improvements, these buildings can throw off substantial cash flow as dormitories for many years, and Boston University is likely to have a much longer time horizon for getting a return on its investment than any developer. For example, if 535 Beacon continued to generate \$1.0 million a year in cash flow as a dormitory, as it did for Emerson in 1984-85, the value to Boston University would be as follows, under various capitalization rates:
Capitalization Rate:	12%	10%	88	68	48
Value (000's):	8,333	10,000	12,500	16,666	25,000

In addition, as we previously mentioned, a number of the properties may be good for single users, either single family residential or institutional.

(B) AQUISITION STRATEGIES

Determining an approach to the acquisition of 14 properties, with the knowledge that the properties will not be physically available for conversion for as long as 2 to 3 years, presents unusual difficulties to both the buyer and seller. There are many risks, contingencies, unknowns, and seemingly conflicting objectives that must be identified and, if not resolved, evaluated to the point of understanding the exposure that each issue presents to both parties.

After considerable thought, four different alternatives were developed, with consideration given to Emerson's needs to maximize price and manage the timing of cash flows, while minimizing exposure to financial risk. Concurrent consideration was given to the buyer's need to pay a price that would allow a reasonable profit over and above the cost of the purchase plus the subsequent hard and soft costs relating to construction, financing, and marketing. Attention was also paid to the likely requirements of lenders, and overall minimization and control of development risk.

The four acquisition alternatives that were developed are as follows:

- A. Sale/Leaseback
- B. Sale/Leaseback with Syndication
- C. Joint Venture
- D. Any of the above combined with syndication for tax credits and interim use of larger properties as rental properties

A computer spreadsheet was developed to model the first three alternatives and a similar analysis is planned for alternative number four. Each of the four approaches is defined and discussed below. To start, however, the following is an explanation of the computer model.

The financial analysis for the first three alternatives is keyed to a table of assumptions that provides significant parameters to the computations, and is displayed along with the results. There are ten categories of data supplied by this table. The description of most of these assumptions applies to all three scenarios; any differences will be noted in the detailed discussion of the results.

The first entry is the purchase price per gross square foot, which is multiplied by the gross area parameter to determine the total purchase price. The acquisition date and the leaseback rate per square foot are also supplied; they are assumed to be December 31, 1985 and \$10/GSF respectively.

The financing information necessary to compute the acquisition and construction loan costs includes rates of interest, financing fees, an inflation rate and the time elapsed between acquisition, beginning of construction, and sell out of the units. We anticipate a 23 month period for construction of

the new campus, and a phased move by Emerson over 6 months beginning in September, 1987. Construction for conversion is assumed to take 9 months, on average, with pre-sales beginning in early 1988, and closing in June, 1988.

Assumptions are also included for the net square feet of saleable area (which comes from our estimate as previously described), the average price per square foot of saleable area in 1986 (also derived from our previous estimate), the annual inflation rate applied to the period between 1986 and 1989 (we assume 10%), the absorption rate (including the amount pre-sold at 1987 prices, and the monthly rate thereafter), and the sales commission rate. The calculations in the model are all keyed to these assumptions allowing for the testing of a wide variety of a combinations, as shown in the sensitivity tables that follow.

In order to calculate cash flows to Emerson College, estimated land and construction costs for the new campus are supplied to the model, as is the approximate current debt balance on the existing properties. (These figures were provided by Emerson officials except in the case of land cost, which was the estimate from a report published in the Boston Globe for a campus site Emerson had looked at.) The model projects annual cash flows on a "source and use of funds" basis through the anticipated life of the project, for both Emerson College and the developer. These flows are summarized for the entire project, displaying an end of development net loan balance for Emerson, and the net cash flow to the developer, stated both in dollars and as a percentage of gross sales. Once again, we have used a

15% margin on sales revenue as the developer's target rate of return. Summaries of the acquisition and construction loans and total interest costs to the developer are also presented.

To simplify the analysis, all of the alternative aquisition scenarios exclude 355 Commonwealth Avenue since it would not be converted to condominiums. Therefore, the purchase price represents a value that is approximately \$3.2 million less than the value of the entire portfolio, and the resulting implication is that the Emerson loan balance at the end of the project would be less by that amount, plus the interest saved from a lower loan requirement.

ALTERNATIVE A - SALE/LEASEBACK

After several iterations a purchase price of \$96/GSF was found to satisfy the developer's targeted rate of return, producing a purchase price to Emerson of approximately \$40.1 million, prior to consideration of the value of 355 Commonwealth. (This number, in the upper right hand corner of the spreadsheet, on page 157, is highlighted with an arrow.) The more significant result is the projected loan balance of \$27.5 million, (again, prior to consideration of 355 Commonwealth), which represents the amount by which the total cash requirements for paying off the current loan balance and development of the new campus exceed the purchase price and interest income.

From the developer's point of view, if all went according to plan, this transaction would produce a net cash flow of \$13.8 million, equivalent to a 15.1% return on gross sales, but not discounted to present value terms. As mentioned before, this

profit margin may be only minimally acceptable to potential lenders, and if they were to require a higher margin, or a substantial equity investment from the developer, the price offered for the properties would have to be lower.

A sensitivity analysis was performed to test the variation in projected return to the developer and the loan balance to Emerson under varying assumptions. The first two tables, on page 160, shows that a developer's returns might rise dramatically if the actual 1986 selling price were \$25 to \$50/NSF higher than the \$250/NSF base assumption. The converse is also true, however, as the profit margin is equally sensitive on the downside. An average 1986 selling price of approximately \$215/NSF, translating into \$260 and \$286/NSF for 1988 and 1989, represents a "breakeven" point under these assumptions, though it does not factor in any compensation for the years of time spent on the project.

The second table indicates that even if a developer believed that the average 1986 selling price would be as high as \$300/NSF, (implying 1988 and 1989 prices of \$363 and \$399/NSF), he/she still only pay about \$120/GSF for the properties in order to maintain at least a 15% profit margin. This would translate into a price of \$50,085,000 to Emerson.

The third table shows the impact of the same variables on Emerson's loan balance. The selling price of condominiums per square foot is immaterial to Emerson once the properties are sold in this scenario. Each \$10 increase in the price paid to Emerson per gross square foot translates into about a \$5.9 million

decrease in the eventual loan balance upon completion of the new campus. Using the optimistic scenario described above, with a purchase price of \$120/GSF, the balance would be \$13.4 million or roughly half the balance based on a \$96/GSF price.

The last table shows the impact a higher inflation assumption would have on the developer's profit: one might be willing to pay \$120 to \$130/GSF for the properties if one expected the price inflation rate to be at 20% or more during the next three years.

ALTERNATIVE B - SALE/LEASEBACK WITH SYNDICATION

In an attempt to improve the Emerson loan position upon completion of the project we introduced some outside investment funds into the financing approach by way of a syndication. This vehicle would have to offer an attractive return for such a risky venture; we have used 20% as the investors' required compound annual rate of return. The assumptions are indicated on the spreadsheet in the bottom left corner, under number "11", as shown on page 158. It should be noted that the depreciation assumption is based on the 18 year write-off allowed under the current tax law; the new law that is likely to be passed would reduce the amount of the depreciation deductions, eliminate deductions for local property taxes, and would likely pertain to buildings acquired after January 1, 1986.

Since much of the investor return is generated through tax deductions allowed for asset depreciation, interest, amortization, and initial operating losses during the leaseback period, the required cash payout in 1989 is only \$5.6 million on

a \$6.0 million initial investment. The cash invested allows for a reduction in borrowing by the developer, and most of the interest savings can be passed on to Emerson in the form of a slightly higher purchase price, \$99/GSF versus the \$96/GSF in alternative A.

The result of all this is a \$1.75 million reduction in Emerson's final projected loan balance, consisting of \$1,250,000 of increased sale proceeds, \$400,000 savings on interest expense, and a \$100,000 increase in interest income. While an improvement, it does not significantly change the bottom line result to Emerson: the loan balance is still very high at \$25.7 million, the carrying cost on which probably represents an untenable, if not unacceptable situation.

ALTERNATIVE C - JOINT VENTURE

The first two alternatives forced us to focus on Emerson's ending loan balance, the result being the development of a joint venture approach. This form of financial organization is potentially attractive to both parties because it trades shared risk for shared opportunity, and also lowers the overall financial exposure for the project. In order to assure the validity of comparison among the various models, the only change in assumptions was a return to the original purchase price of \$96/GSF, as shown on page 159. This approach assumes that Emerson would receive funds from a loan arranged by the joint venture partners with a guaranteed minimum amount, established by the \$96/GSF value, dispersed on an "as needed" basis to cover the costs for the new campus. All funds in excess of the minimum

would still have to be raised through additional borrowings, or other means, by Emerson.

The phased disbursement of the loan would result in lower financing costs to the joint venture. In addition, this scenario would allow for the elimination of both property taxes and the lease payments by Emerson. Finally, the assumption is that the net profit from the development would be split evenly between Emerson and the joint venture partner.

The overall impact of these changes greatly improves the financial result to Emerson, while providing a lower return commensurate with the sharing of risk to the joint venture partner. The differences between this alternative and B are summarized below:

ITEM	AMOUNT (000's)
Final Loan Balance - B	\$25 , 774
Lower Purchase Price Lower Interest Income Elimination of Leaseback Lower Interest Expense	(1,250) (1,810) 8,350 1,550
Total Borrowings - C	18,937
50% Share of Profit	(7,032)
Final Loan Balance - C	\$11,905

The final loan balance stated here is displayed in the lower right hand corner of the Emerson section of the spreadsheet. Since the 1985 debt balance was repaid, under the assumptions used, the relocation to a new campus would be completed with a net increase in current debt of about \$5.0

million assuming no funds from operations or gifts are available over the life of the project. The overall profit margin prior to the split between the partners is 15.4%, which again meets the anticipated minimum return requirement.

The sensitivity tables for this alternative, on page 160, demonstrate the impact that the combination of reduced overall development costs and the sharing of profits provides. Emerson's end of project debt balance is less than under the sale/leaseback scenario even if the selling price drops below expectations. In fact, even with a \$200/NSF 1986 selling price assumption, Emerson's loan balance would be \$21.4 million, still quite high, but considerably lower than the projected level under the sale/leaseback. The developer/partner benefits in this scenario as well; though the upside is only half of the absolute potential, the downside risk is greatly mitigated. The following table summarizes a likely range of potential results under this alternative:

ASSUMPTION FOR SELLING PRICES/NSF

YEAR	\$/NSF	\$/NSF	\$/NSF
1988	\$257.11	\$302.50	\$347.89
1989	\$287.36	\$332.75	\$378.14
PROFIT MARGIN	0	15.4%	30.8%
TOTAL PROFIT (000'S)	0	\$14,063	\$28,126
EMERSON SHARE	0	\$ 7,032	\$14,063
EMERSON LOAN BALANCE	\$18,837	\$11,905	\$ 4,874

There are many important issues to consider with the joint venture approach that go beyond the purely financial analysis contained here. For example, it may be difficult politically for Emerson to be a partner in a for-profit development, and there would undoubtedly be additional legal difficulties in such an arrangement between the parties. Still, it seems that any transaction will, in essence, require a level of trust, cooperation, and coordination not unusual in a joint venture, and therefore, a structure that best provides a mutually beneficial financial result should be attempted. Slightly different structures, built on this general approach, may provide Emerson with some upside reward and the necessary political "distance" it needs while placing a somewhat greater financial burden on the developer.

ALTERNATIVE D

The fourth acquisiton alternative under consideration will not be fully developed until a later date. It is substantially more complex and the result is highly dependent upon the timing and extent of the adoption of changes in the Federal tax code as proposed by the Reagan Administration. It is described here in its embryonic state because initial consideration indicates that it has financial merit and, further, that it can be a vehicle for mitigation of market risk.

The basis of the idea is to take one or more of the three largest properties, which are at 100, 534 and 535 Beacon Street, and treat them as longer term investments. Following a complete rehabilitation, they would be rented for at least five years

before conversion to condominiums. Under current tax regulations, since these properties fall within a National Historic District, the rehabilitation costs would qualify for a 25% investment tax credit if the development costs were equal to or greater than the purchase price. Based on our cost estimates, 535 Beacon would qualify if purchased at the value we derived, 534 Beacon would narrowly miss, and 100 Beacon would not be even close. The new tax laws are expected to do away with the tax credits, so the issue which is currently being researched is to what extent the usual "grandfathering" provisions for changes in regulations will apply to a purchase under current code, but a rehabilitation that will not be performed for 2 to 3 years after the laws are changed.

If the project can be assured of the availability of this tax credit, it can be combined with the projected non-cash tax losses created by the current 18-year depreciation to raise significantly more in syndication proceeds than envisioned in Alternative B above. If only 535 Beacon were done this way, a \$12 million development cost would provide up to \$3 million in tax credits; these credits are worth an equal amount in tax savings to investors, and this additional amount should be readily raised in a syndication that would offer tax shelter, cash flow, and future economic return from a potential condominium conversion after a minimum of five years. The result of some tax code research will trigger the financial projections necessary to determine the financial potential of this approach.

The bonus to this approach is the deferral of a substantial portion of the total condominium units from the market for at

least five years. As noted previously, we expect difficulty in the absorption of approximately 350 units over a short period of time, particularly at prices that have been achieved by a relatively small portion of previous transactions. We cannot predict in 1985 what the market will be in 1988 and 1989, but the risk of purchasing the entire portfolio now and running into a cold market with an excess of product would be substantially reduced with this alternative.

An additional factor to consider is the relatively less desirable location of the 534 and 535 Beacon properties. They are furthest from the Public Garden and downtown, nearest to the student life of Kenmore Square, and their block contains several student dormitories and fraternaties. For these reasons, it may be beneficial to give the marketplace more time to "reach" this area of the Back Bay, letting the development entity and the limited partners derive the full benefit of the appreciation that will likely take place in the years after Emerson vacates the buildings. If the results of our investigation into the likely tax code changes are positive, and a new round of financial projections produces a favorable result, then this "warehousing" approach could provide a less risky but equally beneficial longterm result.

		***********************	*********		**********	**********	*************	*******	
A. SALE/LEASEBACK			To Emerso	n:	1986	1987	1988	1989	Totals
1) Outright purchase f	or \$96.00 /65F	40,068,288	Sources:	Sale proceeds	40,068,288				> 40,068,288
2) Acquisition date		31-Dec-85		Additional financing	0	18,267,190	6,521,281	2,747,007	> 27,535,478
3) Leaseback at		\$10.00 /SF		Interest on Sale proceeds	1,710,251				1,710,251
4) Acquisition loan: r	ate	10.502							
•	I of purchase price	100.00%		Total Sources	41,778,539	18,267,190	6,521,281	2,747,007	69,314,017
	financing fees	1.002				•- •			
5) New campus construc	tion/leaseback period	20 Months	Usesi	Campus rental payments	4.173.790	3.825.965	347.815		8,347,560
	- old camers varated beginning	01-Sen-87		Land Acquisition	3.000.000	-,,			3,000,000
	- abased enverout over	6 Months		Deht Renavment	7.000.000				7.000.000
	- fully usestad by	Al-Nar-RR		Construction costs	17 608 696	23.478.241	3.913.043		45.000.000
4) Construction lasse	- Telly Velaces by	417 379		Interest on Add'l financing	17,000,070	058 027	2 240 472	2 747 007	5 944 457
or construction toom:	Cost are SEL - 1995	*45 AA		Inceresc on How I financing	••••••••••••		2,200,422	21/4/,00/	
	Constantion and inflation	4 007 /umas		Total Urac	TE 707 474	70 247 251	4 571 291	9 747 667	40 114 017
	Total band orgh	10 702 ALA		TULEL USES	31,/02,4/0	20,203,233	0,321,201	2,/4/,00/	07,514,017
	lotal nero cost Definera A DEX ef beed	18,782,010		Net Cent Elen	0 004 047	10 004 047		(0)	٥
	Soft COSt @ 234 of naro	4,070,000		NET CARD FIOM	7,770,003	(1,770,003)		(0)	v
	reriod	7 nunths							
	Average outstanding	50.001	302222232		82282282282	1007			**************************************
	Interest rate	11.502	IG Bevero	per:	1989	1481	1766	1787	fotais
	Interest expense	1,012,468							·····
	Financing tees	1.001	Sources:	Acquisition Loan	40,068,288	V			40,068,288
7) Real Estate taxes E	21 of purchase	801,366 /YR		Lonstruction Loan		10,434,430	13,043,063		23,4//,313
				Lease income	4,1/3,/80	3,823,963	34/,813		8,34/,360
B) Sale Assumptions:	Saleable area (NSF)	309,841		Net Sales Revenue - presales			18,596,270		18,596,270
	Average price/NSF 1986	\$250.00		- during øktg			47,730,425	25,001,651	72,732,076
	Annual inflation rate	10.002							
	Selling price for presales	\$275.00		Total	44,242,068	14,260,415	79,717,572	2 5,0 01, 6 51	163,221,706
	Selling price in 1980	\$302.50							
	Selling price in 1989	\$332.75	Uses:						
	Absorption rate/month	7.502		Purchase price to Emerson	40,068,288				40,068,288
	Pre-sales percent	22.501		Acquisition loan interest	4,207,170	4,207,170	2,604,404	0	11,018,745
	Pre-sales close on	01-Jun-88		Construction and soft costs		11,724,148	17,527,643		29,251,791
	Compission rate	3.00%		Construction loam interest	84,790	1,057,302	1,519,849	175,591	2,037,532
				Financing fees	555,069	0			555,069
9) Emerson Assumptions	: Land Acquisition Date	01-0ct-85		Real estate taxes	801,366	801,366	509,201	27,825	2,139,758
	Land cost	3,000,000							
	Construction start date	01-Apr-86		Total Uses	45,716,684	17,789,984	22,161,097	203,416	85,871,183
	Construction meriod	23 Months							
	Development cost	45.000.000							
	Interest rate on funds	8.007		Net Cash Flew - are loan activity	(1.474.616)	(3.529.571)	57.556.475	24.798.235	77.350.523
				- acquisition loan			(40.068.288)	(0)	(40,068,288
10) All area figures a	scludes 355 Commonwealth	29. AOR 65F		- construction loan	1.474.616	3.529.571	(17.488.187)	(10.993.513)	(23.477.513
		21 150 MSF							
		211100 101		Not Cash Flow - after loan renavaest	٥	۵	٥	13.804.723	> 13.804.723
				- at parrent of arous	v sales	•	•) 15.12
				- as beirent of Bioas	38123				, 15.12

Annual Cash Flow:

Total interest costs

Acquisition loan summary: draw

Construction loan summary: draw

40,068,288

balance 40,068,288 40,068,288

interest 4,207,170 4,207,170 2,604,404

draw 1,474,616 13,964,021 (4,445,125) balance 1,474,616 15,438,637 10,993,513

interest 84,790 1,057,302 1,519,849

0

0

0

0

175,591

2,837,532

.

11,018,745

157

EMERSON COLLEGE - ACQUISITION ALTERNATIVES

---> 13,856,277

EMERSON COLLEGE - ACQUISITION ALTERNATIVES

Annual Cash Flow:

LEVELHSEDHCK WITH STR			
) Outright purchase f	or \$99.	00 /GSF	41,320,422
Acquisition date			31-Dec-85
) I paceback at			\$10.00 /SF
, consecutive at) Arguisition Toom, r	ato		10.507
Acquisition rount i	Tofe	werham price	100.007
	kinanc	ing less	1.007
	Tinen. Aion/leseek	act period	20 Months
/ New Campus Construc	LIUN/IEdseu	ack period beninging	Al-Can-97
	- ulu La	appes vacated beginning	A Months
	- paaseu (upper out over	01-War-09
Construction lana	- TULLY	vacated by	A17 378
/ Construction loan:	oross squar	e Teel	\$45.00
	Conch	per our - 1765	4 007/waar
·	LOUSE	hard cost inviscion	10 702 ALA
	fotel Polit	seet # 257 of bard	4 405 501
	Denia	LUSL E ZJA UT HELU	4,073,3V3 Q Mmathe
	rerio Auron	ru na nutatandina	50 007
	Aver a	ige ourstanding	JU. UVA ti 507
	incer 1-4	ESL FELE	1 017 440
	Inter	est expense	1,012,400
1 Baal Cababa Arusa A	rinan 1, 77 (iLling rees	1.VVL 074 AND /VD
) Keal Estate taxes w	22 of purc	:nase	820,400 /14
) Sale Assumptions:	Saleable	area (NSF)	309,841
•	Average p	rice/WSF 1986	\$250.00
	Annual in	iflation rate	10.00%
	Sellin	g price for presales	\$275.00
	Sellir	oprice in 1988	\$302.50
	Sellis	a price in 1989	\$332.75
	Absorptic	n rate/month	7.50%
	Pre-sales	percent	22.50%
	Pre-sales	s close on	01-Jun-88
	Commissio	m rate	3.001
) Feerson Assumptions	· Land Arm	visition Date	01-0ct-85
/ Cmci 30// H338/00/110/13	Land rost		3.000.000
	Construct	ion start date	01-Anr-86
	Construct	tion seried	23 Months
	Bevalase	nt cost	45.000.000
	Interest	rate on funds	8.002
A) A)) /		TEC Passage - 144	70 (00 000
V/ ALL area tigures e	RC14861	233 COMPONWEATCH	21,150 NSF
1) Syndication accum	itions:	Annual Depreciation	2.066.021
		Annual Amortization	706,284
		Operating Losses: 1986	455,773
		1987	803,588
		1988	1.277.488
		Total Tax Losses:	9,467,612
		Harginal Tax Rate	35.002
		Value of Tax Losses	3,313,664
		Amount Raised	6,000,000
		Syndication Costs	15.00%
		Syndication Costs Net Proceeds	15.00% 5.100.000
		Syndication Costs Net Proceeds Required Rate of Return	15.00% 5,100,000 20,00%

To Emerson	:	1986	1987	1988	1989		Totals
Sources:	Sale proceeds	41,320,422				>	41,320,422
	Additional financing	· · o	16.839.955	6.363.117	2.571.317	>	25,774,390
	Interest on Sale proceeds	1,810,422	,	-,,	-,,		1,810,422
	Total Sources	43,130,844	16,839,955	6,363,117	2,571,317		68,905,233
	Contract of contracts	4 177 704	7 075 0/6	747 DIE			B 747 546
USES:	Langus rental payments	4,1/3,/00	3,023,103	34/ 1013			3 000 000
	Lano Acquisition	3,000,000					7 000,000
	Debt Repayment	7,000,000		7 017 047			45 000 000
	Construction costs	17,608,696	23,4/8,261	3,413,043			43,000,000
	Interest on Add'l financing		884,098	2,102,239	2,3/1,31/		2,23/,6/3
	Total Uses	31,782,476	28,188,324	6,363,117	2,571,317		68,905,233
	Net Cash Flow	11,348,368	(11,348,368)	0	0		0
SERERERE To Develop	***************************************	:========= 1986		*****=################################	1 98 9	*********	Totals
Sources:	Syndication Proceeds	5,100,000					5,100,000
	Acquisition Loan	36,220,422	0				36,220,422
	Construction Loan		10,434,450	13,043,063			23,477,513
	Lease income	4,173,780	3,825,965	347,815			8,347,560
	Net Sales Revenue - presales			18,596,270			18,596,270
	- during ektg			47,730,425	25,001,651		72,732,076
	Total	45,494,202	14,260,415	79,717,572	25,001,651		164,473,840
Uses:	Purchase price to Emerson	41,320,422					41,320,422
	Acquisition loan interest	3,803,144	3,803,144	2,200,378	0		9,806,647
	Construction and soft costs	• •	11,724,148	17,527,643			29,251,791
	Construction loan interest	61,901	961,323	1,154,895	88,159		2,266,278
	Financing fees	558.860	. o				558,860
	Real estate taxes	826,408	826,408	525,114	28,695		2,206,625
	Total Uses	46,570,736	17,315,024	21,408,030	116,854		85,410,643
	Net Cash Flow - ore loan activity	(1.076.534) (3,054,609)	58,309,542	24,884,797		79,063,197
	- acquisition loan			(36,220,422)	(0)		(36,220,422)
	- construction loan	1.076.534	3,054,609	(22,089,120)	(5,519,534)		(23,477,513)
	- syndication payout				(5,570,386)		(5,570,386)
	Net Cash Flow - after loan repayment	t 0	0	0	13,794,877	> >	13,794,877
	- as percent of gross	24123				•	
	Acquisition loan summary: draw	36,220,422	**				
	balance	36,220,422	36,220,422	0	•		0 001 117
	interest	3,803,144	3,803,144	2,200,378	0		7,000,00/
	Construction Ioan summary: draw	1,076,534	13,489,059	(9,046,058)	0		
	balance	1,076,534	14,565,592	5,519,534	0		
	interest	61,901	961,323	1,154,895	88,159		2,266,278
	Total interest costs					>	12,072,945

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) Guaranteed min. valu	ue to Emerson \$96.00 /GSF	40,068,288
) Venture date		31-Dec-85
) Leaseback at		\$0.00 /SF
> Venture financing:	rate	10.501
	financing as reg'd for new camp	us 100. 007
	financing fees	1.002
) New campus construct	tion/leaseback period	20 Months
	 old campus vacated beginning 	01-Sep-87
	 phased move-out over 	6 Months
	- fully vacated by	01-Mar-88
) Construction loan: (Gross square feet	417,378
	Cost per GSF	\$45.00
	Construction cost inflation	0.06
	Total hard cost	18,782,010
	Soft cost 🖲 25% of hard	4,695,503
	Period	9 Nonths
	Average outstanding	50.00%
	Interest rate	11.50%
	Interest expense	1,012,468
	Financing fees	1.002
) Real Estate taxes: (none until sale of units	0 /YR
) Sale Assumptions:	Saleable area (MSF)	309,841
	Average price/NSF 1986	\$250.00
	Annual inflation rate	10.002
	Selling price for presales	\$275.00
	Selling price in 1988	\$302.50
	Selling price in 1989	\$332.75
	Absorption rate/month	7.50%
	Pre-sales percent	22.50%
	Pre-sales close on	01-Jun-88
	Commission rate	3.00%
) Emerson Assumptions:	: Land Acquisition Date	01-0ct-85
	Land cost	3,000,000
	Construction start date	01-Apr-86
	Construction period	23 Months
	Development cost	45,000,000
	Interest rate on funds	8.002
0) All area figures en	clude: 355 Communith	29,608 8SF

EMERSON COLLEGE - ACQUISITION ALTERNATIVES

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Annual	Cash	Flow:
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To Emerson	:	1986	1987	1988	1989		Totals
Sources:	Venture financing - guar'td	27,608,696	12,459,592		•	}	10,068,288
	Additional financing		11.629.197	5.418.537	1.044.331		18.892.065
	Share of Net Cash Flow 50.00	z Ö	0	0	7,024,254		7,024,254
	Total Sources	27.608.696	24,088,789	5.418.537	8,868,585	-	 65,984,608
				-,,	-,,		
Uses:	Repay Add'l Financing				7,024,254		7,024,254
	Land Acquisition	3,000,000					3,000,000
	Debt Repayment	7 ,000,000			0		7,000,000
	Construction costs	17 ,608,69 6	23,478,261	3,913,043			15,0 00,000
	Interest on Add'l financing	0	610,533	1,505,539	1,886,839		4,002,911
	Total Uses	27,608,696	24,088,789	5,418,537	8,868,585	-	65,984,608
	Net Cash Flow	0	0	0	0		0
	Net Loan Balance					>	11,867,811
ssessessess To Develop		1 98 6	1 98 7	1988	19 8 9	4228332228:	Totals
					••	*****	
JUQI CESI	Venture financing	27,608,696	12,459,592	0	0		10,068,288
	Construction Loan		10,434,450	13,043,063		2	23,477,513
	Lease income	0	0	0			
	Net Sales Revenue - presales			18,596,270		1	18,596,270
	- during sktg			47,730,425	25,001,651	1	72,732,076
	Total	27,608,696	22,894,042	79,369,757	25,001,651	1	54,874,146
Uses:							
	Venture financing - to Emerson	27,608,696	12,459,592	0	0	4	10,068,288
	Acquisition loan interest	2,878,913	4,207,170	2,604,404	0		9,710,488
	Construction and soft costs		10,434,450	13,043,063		2	23,477,513
	Construction loan interest		1,527,040	1,748, 8 93	172,196		3,448,128
	Financing fees	562,409	0			•	562,409
	Real estate taxes	0	0	0	0	_	0
	Total Uses	31,070,018	28,628,253	17,396,359	172,196	1	77,266,826
	Net Cash Flow - pre loan activity	(3.461.322)	(5,734,210)	61,973,398	24,829,456	;	77,607,321
	- acquisition loan	• •	• •	(40,068,288)	0	(4	10,068,288
	- construction loan	3,461,322	5,734,210	(21,905,110)	(10,780,947)	C	23,490,524
	- Emerson share	• •			(7,024,254)		(7,024,254)
	Net Cash Flow - after loan repayment	t	0	0	7,024,254	>	7,024,254
	- as percent of gross	52185				,	/.01
	Acquisition loan summary: draw	27,608,696	12,459,592	0	0		
	balance	27,608,696	40,068,288	0	0		
	interest	2,898,913	4,207,170	2,604,404	0		Y,710,488
	Construction loan summary: draw	3,461,322	16,172,619	(8,853,630)	0		
	balance	3,461,322	19,634,577	10,780,947	0		
	interest	199,026	1,527,040	1,748,893	172,196		3,647,154

SENSITIVITY TABLES - ALTERNATIVE C: JOINT VENTURE

SENSITIVITY OF NET CASH FLOW TO PURCHASE PRICE/6SF AND 1986 SELLING PRICE/NSF

	Selling Price (1986 \$/MSF)						
	+5109	\$200.00	\$225.00	\$250.00	\$275.00	\$300.00	
	\$70.00	4,435,360	9,339,183	14,250,469	19,161,786	24,073,112	
Purchase	\$80.00	1,663,136	6,574,453	11,485,780	16,397,106	21,308,432	
Price	\$90.00	(1,118,991)	3,792,336	8,703,662	13,614,988	18,526,315	
(\$/GSF)	\$100.00	(3,138,233)	1,010,196	5,921,522	10,832,849	15,744,175	
	\$110.00	(4,798,595)	(1,584,957)	3,139, 38 3	8,050,709	12,962,035	
	\$120.00	(6,560,602)	(3, 197, 763)	357,243	5,268,569	10,179,896	
	\$130.00	(8,014,445)	(4,636,788)	(1,346,759)	2,867,574	7,778,900	

SENSITIVITY OF NET PROFIT MARGIN TO PURCHASE PRICE/85F AND 1986 SELLING PRICE/NSF

	Selling Price (1986 \$/NSF)						
	+5110	\$200.00	\$225.00	\$250.00	\$275.00	\$300.00	
	\$70.00	61	117	167	192	221	
Purchase	\$80.00	21	87	131	16 Z	197	
Price	\$90.00	-21	52	102	141	17%	
(\$/6SF)	\$100.00	-42	17	62	117	147	
	\$110.00	-71	-21	31	87	121	
	\$120.00	-92	-47	02	51	92	
	\$130.00	-117	-61	-17	32	71	

SENSITIVITY OF EMERSON'S DEBT DALANCE TO PURCHASE PRICE/OSF AND 1986 SELLING PRICE/NSF

			Selling Price (1986 \$/NSF)				
	+580	\$200.00	\$225.00	\$250.00	\$275.00	\$300.00	
	\$70.00	28,589,920	23,631,946	18,718,143	13,806,034	8,894,616	
Purchase	\$80.00	25,989,212	21,077,871	16,166,544	11,255,218	6,343,892	
Price	\$90.00	23,335,914	18,424,587	13,513,261	8,601,935	3,690,608	
(\$/6SF)	\$100.00	19,841,196	15,771,270	10,859,943	5,948,617	1,037,291	
	\$110.00	16,025,161	12,993,265	8,206,625	3,295,299	(1,616,027)	
	\$120.00	11,864,722	8,987,004	5,553,308	641,981	(4,269,345)	
	\$130.00	8,796,358	5,418,701	2,128,672	(1,993,447)	(6,904,773)	

SENSITIVITY OF ENERSON'S DEBT BALANCE TO PURCHASE PRICE/OSF AND INFLATION OF SALES PRICE

			Annual Infla	tion Rate (1	986-19 89)	
	+580	5.007	10.00%	15.00X	20.001	25.00%
	\$70.00	23,187,858	18,718,229	14,031,763	9,075,829	3,843,231
Purchase	\$80.00	20,589,953	16,166,544	11,480,483	6,524,708	1,292,178
Price	\$90.00	17,936,655	13,513,261	8,827,199	3,871,425	(1,361,105)
(\$/GSF)	\$100.00	15,283,337	10,859,943	6,173,881	1,218,107	(4,014,423)
	\$110.00	12,566,984	8,206,625	3,520,564	(1,435,211)	(6,667,741)
	\$120.00	8,663,055	5,553,308	867,246	(4,088,528)	(9,321,059)
	\$130.00	5,055,557	2,128,672	(1,768,182)	(6,723,956)	(11,956,487)

SENSITIVITY TABLES - ALTERNATIVE A: SALE/LEASEBACK

SENSITIVITY OF NET CASH FLOW TO PURCHASE PRICE/GSF AND 1986 SELLING PRICE/NSF

			Selling Price	e (1986 \$/NS	F)	
	+\$47	\$200.00	\$225.00	\$250.00	\$275.00	\$300.00
	\$70.00	11,011,070	20,812,980	30,635,628	40,458,288	50,281,615
Purchase	\$80.00	4,520,718	14,367,229	24,189,881	34,012,534	43,835,187
Price	\$90.00	(2,040,128)	7,880,094	17,702,747	27,525,399	37,348,052
(\$/6SF)	\$100.00	(8,601,362)	1,325,854	11,215,607	21,038,260	30,860,912
	\$110.00	(14,839,691)	(5,235,344)	4,691,628	14,551,120	24, 373, 773
	\$120.00	(20,993,904)	(11,641,112)	(1,869,326)	8,057,249	17,886,633
	\$130.00	(27,148,037)	(17,795,488)	(8,430,561)	1,496,691	11,399,494

SENSITIVITY OF NET PROFIT WARGIN TO PURCHASE PRICE/GSF AND 1986 SELLING PRICE/NSF

		Se	elling Price	(1986 \$/NSF)		
	+548	\$200.00	\$225.00	\$250.00	\$275.00	\$300.00
	\$70.00	157	251	342	407	462
Purchase	\$90.00	6 I	172	267	34Z	40Z
Price	\$90.00	-32	107	192	271	342
(\$/6SF)	\$100.00	-127	21	12%	21%	287
	\$110.00	-201	-61	5%	147	221
	\$120.00	-29%	-147	-2%	81	162
	\$130.00	-371	-22%	-9%	11	102

SENSITIVITY OF EMERSON'S DEBT BALANCE TO PURCHASE PRICE/GSF AND 1986 SELLING PRICE/NSF

			Selling Pric	æ (1986 \$/WS	F)	
	+56	\$200.00	\$225.00	\$250.00	\$275.00	\$300.00
	\$70.00	42,798,149	42,798,027	42,798,027	42,798,027	42,798,027
Purchase	\$80.00	36,927,985	36,927,985	36,927,985	36,927,985	36,927,985
Price	\$90.00	31,057,690	31,057,690	31,057,690	31,057,690	31,057,690
(\$/6SF)	\$100.00	25,187,396	25,187,396	25,187,396	25,187,396	25,187,396
	\$110.00	19,317,102	19,317,102	19,317,102	19,317,102	19,317,102
	\$120.00	13,446,808	13,446,808	13,446,808	13,446,808	13,446,808
	\$130.00	7,576,514	7,576,514	7,576,514	7,576,514	7,576,514

SENSITIVITY OF DEVELOPER PROFIT TO PURCHASE PRICE/6SF AND INFLATION OF SALES PRICE

Annual Inflation Rate (1986-1989)

	+S47	5.00%	10.00%	15.00%	20.001	25 .001
	\$70.00	21,809,580	30,635,629	40,007,760	49,919,843	60,385,458
Purchase	\$80.00	15,343,097	24,189,881	33,562,005	43,473,553	53,938,615
Price	\$90.00	8,855,960	17,702,747	27,074,870	36,986,419	47,451,480
(\$/6SF)	\$100.00	2,326,269	11,215,607	20,587,731	30,499,279	40,964,340
	\$110.00	(4,234,732)	4,691,628	14,100,591	24,012,140	34,477,201
	\$120.00	(10,776,081)	(1,869,326)	7,585,376	17,525,000	27,990,061
	\$130.00	(16,930,842)	(8,430,561)	1,024,492	11,021,602	21,502,922

(C) CONCLUSION

One of the more interesting facts about this study is that the topic of converting the Emerson College properties to a new use is being played out in real time. While this study was being prepared for final printing, Emerson announced that it had reached agreement to purchase 60 acres of land in Bedford, Massachusetts. Following a lengthy design and review process, the school envisions construction of a \$50 million, 500,000 square foot campus to begin in late 1986, with occupancy anticipated in 1988.

Over the past few months Emerson's plans and ambitions for a new campus, prompted by a lack of expansion space in their existing neighborhood and the soaring value of their intown properties, has generated a great deal of publicity. One of the frequently mentioned items by the press, and by Emerson officials in private discussions, has been their estimate of the value of these properties. The range of values heard most often is in the range of \$70 to \$100 million, and the Boston Globe article announcing the acquisition of the land on August 15, 1985 once again described the value of the properties to be "as high as \$90 million".

Initially, we had somewhat of a bias toward this range, since it was our first introduction to the concept of what the value might be. In spite of this, the more we analyzed the marketplace and the costs of financing, rehabilitating and marketing the converted properties, the more we became convinced that the economics would not support a value in that range. We believe we have been diligent and reasonable in our approach to establishing our estimate of the market value, and checked our

figures many times as we realized our conclusion would be so far from Emerson's expectations.

The obvious question, therefore, is why the discrepancy? We believe that the only explanation is that the estimates by Emerson and others must be an assumed value that a buyer would agree to pay after the buildings are vacated in 1988, or later. This would imply, of course, that Emerson would have to finance the entire cost for construction of the new campus before receiving funds from the buyer. Without the carrying costs of the sale/leaseback period, the buyer should be willing to pay a somewhat higher price. Still, Emerson would almost certainly need some form of guarantee that the price would be paid, and a buyer would be forced to arrange financing for the acquisition and development in advance. This scenario would require the buyer to convince him or herself, as well as a lender, of the likely value of the properties two to three years hence. We believe that any buyer and lender willing to make a forward commitment of this kind will necessarily be conservative on their estimate of future inflation.

Keeping this in mind, we still believe that a \$90 million value three years from now is highly unlikely. In order to understand what set of circumstances would support such a value, we worked backward from an \$85 million price (for all the properties except 355 Commonwealth) to arrive at an average net square foot selling price that would be required to achieve a 15% gross profit margin in 1988:

Purchase Price	\$85,000,000
(\$31 million inflated at 5%, 2 years)	34,178,000
Plus: 15% Profit Margin	119,178,000 21,031,000
Gross Selling Price	\$140,209,000
Average Selling Price/NSF (309,841 NSF)	\$452.52 =======

Though we do believe that the Back Bay/Beacon Hill property values will continue to rise, and probably rise faster than most other areas of the city, we feel that the liklihood of achieving this average price per net square foot is quite small. Assuming an average 1985 value of \$230/NSF, prices would have to rise approximately 25% per year to reach this level. If one believes the current average value is as high as \$250/NSF, prices would still have to rise 22% per year. Such increases now seem commonplace but due to a host of factors, as we have presented in this study, we expect that future increases will be more modest.

Nevertheless, we expect that even if a developer believed the recent high levels of price inflation would continue, it would still be extremely difficult to convince a lender to commit in advance for such a high value. In this event, in order to pay such a high price, and provide Emerson some assurance of its availability, the developer would most likely have to make up the difference with a price guarantee including substantial equity funds.

PROPERTY INVENTORY -	69 BRIMMER STREET	DATE:	UPDATED: 01-Aug-85
AREA SUMMARY:			
GRDSS AREA:	24682 NET AREA: 16600 EFFICIEN	ICY: 67% PARKING	: 2 in alley
# FLOORS/COMMENTS:	3-4 plus bset		
EXISTING USE:	Theatre Arts - Classrooms, offices and	performing space	
ADJACENT USES:	Residential, Brimmer Street garage		
VIEWS:	Pleasant area, nothing exceptional		
NISCELLANEOUS:			
HIGHEST & BEST USE:	Built for institutional use, but great Will require "out" rehab for residenti	residential loca al use.	tion.
LEGAL/ZONING STATUS:	H-2-65, residential zone, apartments a	ind multi-family c	ondo
ITEM:	CURRENT CONDITION:	RECOMMENDED R	EPAIR:
EXTERIOR CONDITIONS:			
FACADE:	Brick - good cond.	Some pointing	may be req'd.
WINDOWS:	Large double-hung wood - good cond.	Refinishing a	nd weatherproofing.
RODF:	Unknown - no apparent leaks.		
SETTLING:	No settling apparent.		
INTERIOR CONDITIONS:			
LOBBY:	None. Three entrances from street.	Redesign for	residential use.
STAIRS:	Good condition.	Redesign for	residential use.
	Fire stairs	-	
FLOORS:	Vinyl tile and carpet	Redesign for	residential use.
WALLS/CEILINGS:	OK, minimal trim	Redesign for	residential use.
ELEVATORS:		-	
CABS:	None.	Install shaft	, eqpt., etc.
EQUIPMENT:			
MECHANICAL SYSTEMS:			
HEATING:	Steam. oil	Redesign for	residential use.
AIR CONDITIONING:	None.	Redesign for	residential use.
PLUMBING EQPT.:	01 d	Redesign for	residential use.
DISTRIBUTION:	Old	Redesign for	residential use.
ELECTRICAL:		2	
SERVICE:		Assume all ne	M.
DISTRIBUTION:	Some new.	Assume all ne	W.
FIRE SAFETY:			
FIRE ALARM:	Yes		
ENERGENCY LIGHTS:	Yes		
SPRINKLERS:	Yes		
COMMENTS:			

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Exhibit 1A

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PROPERTY INVENTORY -	96 BEACON STREET	DATE:	UPDATED: 01-Aug-85
AREA SUMMARY: GROSS AREA: # FLOORS/COMMENTS:	15619 NET AREA: 8586 EFFICIENCY: 4 plus basement	55% PARKING	: 2 in alley
EXISTING USE: ADJACENT USES: VIEWS: MISCELLANEOUS: HIGHEST & BEST USE:	Student union; formerly Engineer's Club Residential, public pedestrian and vehicl Riverviews from rear, upper floors; Publi Corner location, potential for adding wir Condo or single family (due to ineff. lay	e access c Garden views Ndows on west s Yout); restaura	from front ide nt/club on 1st. floor
LEGAL/ZONING STATUS:			
ITEN:	CURRENT CONDITION:	RECOMMENDED R	EPAIR:
EXTERIOR CONDITIONS:			
FACADE: WINDOWS: ROOF: SETTLING:	Brick, stone, iron grillwork - good cond. Old, previous updating on 1,2 and 4 Unknown - no apparent leaks. No settling apparent	. Some pointing Restore to or	may be req'd. iginal style
INTERIOR CONDITIONS: LOBBY:	Marble floors, wood beam ceiling Nice detail	Clean and res	tore any damage.
STAIRS:	Major central stair, good cond. Fire stairs	Clean and res	tore any damage.
FLOORS: WALLS/CEILINGS:	Oak and carpet. Some wood beamed, good cond.	Remove carpet Assume minor	, refinish oak floors. repairs to existing
ELEVATURS: CABS: EQUIPMENT:	1 Original Old	Refurbish Vodate or rep	lace equipment
MECHANICAL SYSTEMS:	Orininal	Redesing for	residential use.
AIR CONDITIONING: PLUMBING EQPT.: DISTRIBUTION:	None. Old Old	Redesign for Redesign for Redesign for	residential use. residential use. residential use.
ELECTRICAL: SERVICE:	_	Assume all ne	м.
DISTRIBUTION: FIRE SAFETY:	Some new.	Assume all ne	H.
FIKE ALAKM: EMERGENCY LIGHTS: SPRINKLERS: COMMENTS:	Yes Yes		

Exhibit 1B

PROPERTY INVENTORY -	100 BEACON STREET	DATE:	UPDATED: 01-Aug-85
AREA SUMMARY: GROSS AREA: # FLOORS/COMMENTS:	48268 NET AREA: 40000 EFFICIENCY: 10 plus basement	B3% PARKING:	6 –8 in back
EXISTING USE: ADJACENT USES: VIEWS:	Dormitory on 6-10; offices 1-5; bookstore Fisher Junior College, public pedestrian Riverviews from rear, upper floors; Publi	bsmt. and vehicle acces c Garden views fr	is rom front and side
MISCELLANEOUS: HIGHEST & BEST USE:	Corner location; former apartment buildin Condos, potentially high end rental	g	
LEGAL/ZONING STATUS:			
ITEN:	CURRENT CONDITION:	RECOMMENDED REPA	AIR:
EXTERIOR CONDITIONS: FACADE: WINDOWS: ROOF: SETTLING:	Brick and stone - good cond. Original with new storms Unknown - no apparent leaks. No settling apparent.	Some pointing ma	ay be req'd.
LOBBY:	Marble floors, columns Worn plaster detail	Clean and restor	re any damage; pot. redesign
STAIRS:	Fire stairs only, good cond.	Clean and paint.	
FLOORS: WALLS/CEILINGS: FLEVATORS:	Oak and carpet. Signif prior redsgn, drop clgs,new walls	Remove carpet, m Assume major rem	refinish oak floors. design.
CABS: EQUIPMENT:	1 frt, 1 pass.; both old and plain Rebuilt motor on pass.; one AC, one DC	Replace with his Update or replac	gh quality cabs ce equipment
HEATING: AIR CONDITIONING: PLUMBING EQPT.: DISTRIBUTION: ELECTRICAL:	Oil/steam, 2 burners, good cond. 1st floor only Old Old	Keep existing o New central syst Redesign for re Redesign for re	r replace with heat pumps? tem or indiv. heat pumps? sidential use. sidential use.
SERVICE: DISTRIBUTION:	1200 amp. New	Verify adequacy Verify adequacy	; new wiring to apartments.
FIRE SHEET: FIRE ALARN: ENERGENCY LIGHTS: SPRINKLERS: COMMENTS:	Yes, 8 zone Yes	Verify adequacy Verify adequacy Verify adequacy	

Exhibit 1C

PROPERTY INVENTORY -	126-128-130 BEACON STREET	DATE:	UPDATED:	01-Aug-85
AREA SUMMARY: GROSS AREA:		 CY: 582 PARKING:		8 in back
# FLOORS/COMMENTS:	4 plus basement			
EXISTING USE:	Radio, TV studios, classrooms, securit	y office		
ADJACENT USES:	Residential, pedestrian and vehicle ac	Cess		
VIEWS:	Riverviews trom rear, upper floors			
MISCELLANEDUS:	Corner location; owned by Emerson for	decades		
HIGHEST & BEST USE:	Condos, potentially high end rental			
LEGAL/ZONING STATUS:	· .			
ITEN:	CURRENT CONDITION:	RECOMMENDED RE	EPAIR:	
EXTERIOR CONDITIONS:				
FACADE:	Brownstone, badly deteriorated;	Complete rest	pration	
WINDOWS:	Old, poor cond., no storms	Replace with e	energy eff.	
ROOF:	New tar and gravel (126), old 128-130	(?) Repair as req	ʻd.	
SETTLING:	No settling apparent.			
INTERIOR CONDITIONS:				
LOBBA:	130: high clg, det.; 126: low clg	Clean and rest	tore any damag	e
	Mosalc +loor	Potential rede	251gn 126-8	
STAIRS:	130:3-sty, skyl.,22';126:iron bal.	Clean and rest	tore any damag	e
	Grand stair, fire stairs	Potential rede	esign 126-8	
FLOORS:	Hardwood under VAT, cpt.; marble thrhl	ds lRemove carpet	, refinish oak	floors.
WALLS/CEILINGS:	130:2nd fl. beaut; 126:good detail thr	oughfluch redesign	req'd; restor	e existing detail.
ELEVATUKS:	01J - bath and and in 170	D 170.		ach (ac 10/ 0/0)
LRUS: CONTONENT.	Ulo snaft and cao in ISV	Kestore 130; I	lew snatt and	Ca0 for 120-8(?)
NECHANICAL EVETENC.	none	uem edathmeur		
HEATING:	hoiler for hot water (2): reheat w/in	ducRedesign for u	residential us	٥
AIR CONDITIONING-	roofton on rear carriage bes - lennov	Reuse contral	esidencial us	iv host numer?
PLIMRING FOPT .	NIA	Redesion for a	system of Ind	o near pumps:
DISTRIBUTION:	01d in 130: new in 126.	Redesign for a	residential us	P.
ELECTRICAL:		Neelongii ion i		
SERVICE:	1600 amp. for all three bldgs	Verify adequa		
DISTRIBUTION:	-	Verify adequa	:v: new wiring	to apartments.
FIRE SAFETY:			,,	
FIRE ALARM:	130:old; 126: new, connected to city	Verify adequa	:y.	
ENERGENCY LIGHTS:	130:old; 126: new	Verify adequa		
SPRINKLERS:	130:yes, exposed; 126:yes	Verify adequa	:y.	
COMMENTS:	Potential to convert rear carraige hou	se to 8-10 garage	spaces	
	Nice rear courtyard			

Exhibit 1D

PROPERTY INVENTORY -	143-145 BEACON STREET	DATE:	UPDATED:	01-Aug-85
AREA SUMMARY: GROSS AREA: # FLOORS/COMMENTS:	16896 NET AREA: 9272 EFf 4 plus basement	ICIENCY: 55% PARKING	G:	2 in back
EXISTING USE: ADJACENT USES: VIEWS:	Classroom, office Residential, 303 Berkeley None			
MISCELLANEOUS: HIGHEST & BEST USE:	Connects with 303 Berkeley at bs Condos, potentially high end ren	at. and top floor al	·	
LEGAL/ZONING STATUS:				
ITEM:	CURRENT CONDITION:	RECOMMENDED F	REPAIR:	
EXTERIOR CONDITIONS: FACADE: WINDOWS: ROOF: SETTLING:	Brnstn, badly deterior; nice door Old, fair cond., no storms No settling apparent	s 143 Complete rest Replace with Repair as rec	toration energy eff. q'd.	
LOBBY:	VAT floors,detail & wood flrs 14 No detail 145	Clean and res Potential res	store any damage design 145	
STAIRS: FLOORS:	not grand,poor,nice rail 143 New, no feature 145 fair	Clean and re Potential rec	store any damage design 126-8	
WALLS/CEILINGS: ELEVATORS:	Some hung clg hiding detail	Much redesign	n req'd; restore	existing detail
CABS: EQUIPMENT:	cab in 143, in fire stair, dsnt u none	ork Replace with New equipment	new cab, 143 on L	ly.
HECHANICAL SYSTEMS: HEATING: AIR CONDITIONING: PLUMBING EQPT.: DISTRIBUTION:	Served by 143,bad oil odor - 143 none Old Old	Redesign for Redesign for Redesign for Redesign for	residential use residential use residential use residential use	• • •
ELECTRICAL: SERVICE: DISTRIBUTION:	1600 amp. for all three bldgs?	Verify adequa Verify adequa	acy. acy; new wiring	to apartments.
FIRE SAFETY: FIRE ALARM: EMERGENCY LIGHTS SPRINKLERS: CONMENTS:	Yes Yes, battery in 143 Yes	Verify adequa Verify adequa Verify adequa	acy. acy. acy.	

Exhibit 1E

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PROPERTY INVENTORY -	303 BERKELEY STREET	DATE:	UPDATED: 01-Aug-85
AREA SUMMARY: GROSS AREA: # FLOORS/COMMENTS:	8566 NET AREA: 6290 EFFICIENCY: 4 plus basement	737 PARKING:	3 in back
EXISTING USE: ADJACENT USES: VIEWS:	Classroom, office Residential, 145 Beacon, public pedestria None	n & vehicle traff:	ic
HIGHEST & BEST USE:	Condos, potentially high end rental	100	
LEGAL/ZONING STATUS:			
ITEM:	CURRENT CONDITION:	RECOMMENDED REPA	IR:
EXTERIOR CONDITIONS:			
FACADE: WINDOWS: ROOF: SETTLING:	Brick - good cond.,cut brownstone windows Orig. double hung sgle panel, no storms Unknown - no apparent leaks. No settling apparent.	Some pointing ma Replace with ene Repair as req'd.	y be req'd., rest. brnstne wi rgy eff.
INTERIOR CONDITIONS:	···		
LOBBY:	Great det. & marble floors Separate side entry	Clean & paint, m	arble repair
STAIRS:	6d mn. str,int. fire stair Good detail & balustrade	Clean & paint	
FLOORS: WALLS/CEILINGS:	Old floors 4th level, others	Refinish or repa	ir
CABS: EQUIPMENT:	Cage in, 2 drs., fair cond. Operable	Refurbish & repa	ir
MECHANICAL SYSTEMS:		.	
HEATING: AIR CONDITIONING: PLUMBING EQPT.: DISTRIBUTION:	New hot watr bsbd, old boller None	Redesign for res Redesign for res Redesign for res Redesign for res	idential use. idential use. idential use. idential use.
ELECTRICAL:		-	
SERVICE: DISTRIBUTION:	New 800 amp. 3-phase, panels-fuses	OK as is. Reloca Assume all new.	te?
FIRE SAFETY: FIRE ALARN: ENERGENCY LIGHTS: SPRINKLERS: CONMENTS:	Yes 8 zone to fire dept. Yes No 2nd floor & up	Verify adequacy Verify adequacy Redesign for res	idential use.

Exhibit 1F

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PROPERTY INVENTORY - 132-134 BEACON STREET 01-Aua-85 DATE: 27-Jun-85 UPDATED: AREA SUMMARY: GROSS AREA: 13 in back 20016 NET AREA: 17405 EFFICIENCY: 87% PARKING: # FLOORS/COMMENTS: 4 plus basement (6-8 more poss.?) EXISTING USE: Dormitory ADJACENT USES: Residential, public pedestrian & vehicle access VIEWS: River, from back & side Extension off rear with courtyard MISCELLANEOUS: HIGHEST & BEST USE: Condos, potentially high end rental Will require "gut" rehab for residential use. LEGAL/ZONING STATUS: 9 parking spaces rented Tenant-at-will, \$450/mo. ITEN: CURRENT CONDITION: **RECOMMENDED REPAIR:** EXTERIOR CONDITIONS: FACADE: 132: Brwnstone, deteriorated, repl. steps Restore facade, side & detail 134: Brownstn and brick, some work needed Replace with energy eff. WINDOWS: Orig., double hung, no storms Repair as req'd. ROOF: INTERSETTLING: TIONS: No settling apparent. LOBBY: 132: Side entr., some det., mrbl frplce Redesign for residential use. 134: nothing special @ 1st fl. STAIRS: Poor on 1st flr, ext. fire esc. on fromt Redesign for residential use. and rear FLOORS: Refurb. for residential use. Redesign for residential use. WALLS/CEILINGS: ELEVATORS: CABS: In 132, small cage- poor cond. Repair & refurb. EQUIPMENT: In basement, cable Cond.? MECHANICAL SYSTEMS: Very old oil H.W. Redesign for residential use. HEATING: AIR CONDITIONING: Redesion for residential use. No PLUMBING EQPT.: 01 d Redesign for residential use. DISTRIBUTION: 01 d Redesign for residential use. ELECTRICAL: Very old, poor cond. Assume all new. SERVICE: Assume all new. DISTRIBUTION: Original FIRE SAFETY: Verify adequacy FIRE ALARM: Yes, surf. mounted conduit, mult. zone EMERGENCY LIGHTS: Battery Verify adequacy SPRINKLERS: Yes Verify adequacy COMMENTS: Very little detail in 132, geometric style Large central stair in 134 at level 2 and 3 Reuse of carriage house extension of 132 for garage parking? Redesign for optimal use of elevator to serv. both bldgs.

Exhibit 1G

PROPERTY INVENTORY -	148 BEACON STREET	DATE: 27-Jun-85 UPDATED: 01-Aug-8
AREA SUMMARY:		
GROSS AREA:	12132 NET AREA: 6545 EFFICIENCY:	PARKING: none
FLOORS/COMMENTS:	4 PLUS BASEMENT	(see 150 Beacon)
EXISTING USE:	Office, classroom	
ADJACENT USES:	Residential, library	
VIEWS:	River	
MISCELLANEOUS:	Basement & 2nd floor connected to 150	
HIGHEST & BEST USE:	Condos.,potentially high end rental, sing	le family, instit. Use above 1st flr.
LEGAL/ZONING STATUS:	will require gut rendo for restocation	
ITEM:	CURRENT CONDITION:	RECOMMENDED REPAIR:
EXTERIOR CONDITIONS:		
FACADE:	Granite & light brick, perfect	
WINDOWS:	01d	Replace with energy eff.
ROOF:	Tar & gravel, looks DK	
SETTLING:	No settling apparent.	
INTERIOR CONDITIONS:		
LOBBY:	Circ lobby, mrbl frpl & flrs, great det	
STAIRS:	Iron rail 1st flr, int fire esc	
FLOORS:		Repair as req'd
WALLS/CEILINGS:		Repair as req'd
ELEVATORS:		
CABS:	3′6″x 3′6″ wood panel	Repair & refurb as req'd
EQUIPMENT:	Operable	Repair as req'd
NECHANICAL SYSTEMS:	•	
HEATING:	New HW oil- boiler for 148 & 150 in bsmn	t i i i i i i i i i i i i i i i i i i i
AIR CONDITIONING:	Yes in 148	May need additional capacity
PLUMBING EQPT.:	01 d	Redesign for residential use.
DISTRIBUTION:	01 d	Redesign for residential use.
ELECTRICAL:		
SERVICE:		
DISTRIBUTION:		Assume all new.
FIRE SAFETY:		
FIRE ALARN:	7 zones	Verify adequacy
ENERGENCY LIGHTS:	Yes	Verify adequacy
SPRINKLERS:		Verify adequacy
COMMENTS:		
Courtyard		

Exhibit 1H

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PROPERTY INVENTORY -	150 BEACON STREET	DATE: 2	27-Jun-85 UPDATED:	01-Aug-85
AREA SUMMARY: GROSS AREA: # FLOORS/COMMENTS:	22300 NET AREA: 11720 EFFICIENCY: 4 plus basement	53% PAI	KING:	10
EXISTING USE: ADJACENT USES: VIEWS: MISCELLANEDUS: HIGHEST & BEST USE:	Library Residential River Great detail, beautiful building Single family, condos, very high end rent	al, insti		
LEGAL/ZONING STATUS:				
ITEM:	CURRENT CONDITION:	RECOMMEN	DED REPAIR:	
EXTERIOR CONDITIONS: FACADE: WINDOWS:	Limestone, nice architectural detail New	Replace	missing baluster	
ROOF: SETTLING: INTERIOR CONDITIONS:	Good condition, no leaks noted No settling apparent.	Repair a	s req'd.	
LOBBY:	Grand fireplace, oak floor & panelling			
STAIRS: FLOORS: WALLS/CEILINGS:	Grand oak stairway, excellent cond. Intern. fire strs. and ext. fire esc. Wood, carpet, & VAT upstairs Beaut. wood & plaster det., all restored			
ELEVATORS: CABS: Equipment:	Cage, good condition Good condition	Verify a	dequacy	
MECHANICAL SYSTEMS: HEATING: AIR CONDITIONING: PLUMBING EQPT.: DISTRIBUTION:	New with pumps, HW, oil New New New	May requ	ire some changes f	or res. use
ELECTRICAL: SERVICE: DISTRIBUTION: FIRE SAFETY:	1200 amp for 148 &150 New, panels in bsmt with service			
FIRE ALARN: EMERGENCY LIGHTS: SPRINKLERS:	New, in bsmt of 150 New Yes			
COMMENTS:	Iron fencing & landscaping at entrance Formerly Fuller Mansion Completely rehabbed			

Exhibit 11

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PROPERTY INVENTORY -	168 BEACON STREET	DATE: 27-Jun-85 UPDATED: 01-Aug-85
AREA SUMMARY:		
GROSS AREA:	14056 NET AREA: 7500 EFFICIENCY	/: 53% PARKING: 4 -6 in
# FLOORS/COMMENTS:	5 plus basement	carr. hse.
EXISTING USE:	Classroom, office	
ADJACENT USES:	Residential	
VIEWS:	River	
NISCELLANEUUS:	Very wide building	
HIGHESI & BESI USE:	Londos, potential nigh end rental	
LEGAL/ZONING STATUS:		
ITEN:	CURRENT CONDITION:	RECOMMENDED REPAIR:
EXTERIOR CONDITIONS:		
FACADE:	Deteriorating brownstone & steps	Restore
WINDOWS:	Old, no storms	Replace with energy efficient
ROOF:	No leaks noted	Repair as req'd.
SETTLING:	No settling apparent.	
INTERIOR CONDITIONS:		
LOBBY:	Good detail	Clean & paint
STAIRS:	Not level, wood rail, int fire stair	Repair as req'd.
FLOORS:		Repair & refurb as req'd
WALLS/CEILINGS:		Repair & refurb as req'd
ELEVATORS:		
CABS:	01 d	New cab and eqpt.
EQUIPMENT:	01 d	May want to relocate.
MECHANICAL SYSTEMS:		- · · · · · · · ·
HEATING:	Reasonably new gas H₩	Redesign for residential use.
AIR CONDITIONING:	None	Redesign for residential use.
PLUMBING EQPT.:	Old	Redesign for residential use.
DISTRIBUTION:	Uld	Redesign for residential use.
ELECTRICAL:		
SERVICE:		ASSUME ALL NEW.
DISTRIBUTION:	010	ASSUME all new.
FIRE SAFEIT:	New	
FIRE ALAKA:		
CODINKI COC.	TES Vac but ald	
STRINKLERS: COMMENTE:	125, DUC 010	
Ginale story arton	sion rear	
Nice detail & fire	nlare ist floor	
Ray windows	piace 136 11001	
Day WINGOWS		

Exhibit 1J

PROPERTY INVENTORY -	534 BEACON STREET	DATE: 27-Jun-85 UPDATED:	01-Aug-85
AREA SUMMARY: GROSS AREA: FLOORS/COMMENTS:	61618 NET AREA: 41552 EFFICIENCY: 10	67% PARKING:	27 in deck to be blt.
EXISTING USE: ADJACENT USES: VIEWS: MISCELLANEOUS:	Dormitory - 90 rooms Residential, public pedestrian & vehicle River Cafeteria on 1st floor, former Fensgate H	access otel ·	
HIGHEST & BEST USE: Legal/zoning status:	Condos, rental, hotel,dormitory		
ITEM:	CURRENT CONDITION:	RECOMMENDED REPAIR:	
EXTERIOR CONDITIONS: FACADE: WINDOWS: RODE:	Unattractive ground floor addition Original	Some pointing may be req'd. Replace with energy efficie	int
SETTLING: INTERIOR CONDITIONS: LOBBY:	No settling apparent. Reception office, VAT floor, unattractive	e Redesign for residential us	58.
STAIRS:	2 interior fire stairs	Redesign for residential us	ie.
FLDORS: WALLS/CEILINGS:	Carpet, VAT, or creaking wood 8' ceilings & walls, small room molding	Redesign for residential us Redesign for residential us	5e. 5e.
ELEVATORS: CABS: EQUIPMENT:	2 ugly metal panels, small, narrow doors Operable	Redesign for residential us	52.
MECHANICAL SYSTEMS: HEATING: AIR CONDITIONING: PLUMBING EQPT.: DISTRIBUTION,	Single boiler,gas hot water None OK Brass old & galv	Redesign for residential up Redesign for residential up Redesign for residential up Redesign for residential up	58. 58. 58.
ELECTRICAL: SERVICE: DISTRIBUTION:	New In front office & on each floor		
FIRE SAFETY: FIRE ALARM: ENERGENCY LIGHTS: SPRINKLERS:	Throughout, hard wire smokes Yes, battery operated No – fire hose in corridors		
COMMENTS:		.	

Good kitchen, dining area renovated, no basement, 2nd flr laundry no windows

Exhibit 1K

PROPERTY INVENTORY -	535 BEACON STREET	DATE:	27-Jun-85 UPDATED:	01-Aug-85
AREA SUMMARY:				
GROSS AREA:	125000 NET AREA: 109743 EFFICIENCY:	: 88% F	ARKING:	0
# FLOORS/COMMENTS:	Varies from 6 to 8			
EXISTING USE:	Dormitory			
ADJACENT USES:	Residential, dormitory, fraternities, ins	stitution	al	
VIEWS:	River, Boston skyline flrs. 5 to 8			
MISCELLANEOUS:				
HIGHEST & BEST USE:	Condominium, Hotel, or Dormitory Will require "qut" rehab for residential	use.		
LEGAL/ZONING STATUS:	H-3-65, apartment and multi- family residential			
ITEN:	CURRENT CONDITION:	RECOMME	NDED REPAIR:	
EXTERIOR CONDITIONS:				
FACADE:	masonry and granite fair	Cleanir	ig and repair on rea	r, courtyard
WINDOWS:	50% new, replace balance	replace	all old windows	
ROOF:	new on 7th floor only	repair	or replace with add	ition
SETTLING:	No settling apparent.	Verify	settling and piles	
INTERIOR CONDITIONS:				
LOBBY:	ornate wall tile at entry	Repair	redesign for resid	ential use.
	beamed clgs. and columns in central pace			
	generally poor condition			
STAIRS:	3 existing stairs, fair condition	Redesig	n for residential u	se.
	no grand stairs			
FLOORS:	some tile and wood, poor condition	Redesig	n for residential u	se.
WALLS/CEILINGS:	nice detail 1st floor, balance poor	Redesig	n for residential u	se.
ELEVATORS:				
CABS:	old and poor, replace	Instal	shaft, eqpt., etc.	
EQUIPMENT:	replace			
MECHANICAL SYSTEMS:	•			
HEATING:	mixed systems, all old	Redesi	n for residential u	se.
AIR CONDITIONING:	none	Redesi	In for residential u	se.
PLUMBING EQPT.:	new group toilets, old individual baths	Redesi	n for residential u	se.
DISTRIBUTION:	assume all old	Redesid	n for residential u	se.
ELECTRICAL:				
SERVICE:	possibly new service	Assume	all new.	
DISTRIBUTION:	old	Assume	all new.	
FIRE SAFETY:				
FIRE ALARN:	reasonably new throughout	Assume	all new.	
EMERGENCY LIGHTS:	battery.location.condition	Assume	all new.	
SPRINKLERS:	new pumps, old distribution	Assume	all new, reuse pump	5
COMMENTS:	• • •		, iF	
several fireplaces	in individual rooms on all floors			
beamed ceilings on	upper floors			
heavy textured pai	nt to be removed			
narrow corridors o	n upper floors of south wing			

Exhibit 1L

PROPERTY INVENTORY -	355 COMMONWEALTH AVENUE	DATE: 27-Jun-85 UPDATED: 01-Aug-85
AREA SUMMARY: GROSS AREA: # FLOORS/COMMENTS:	29608 NET AREA: 21150 EFFICIENCY 5 plus basement	: 71% PARKING: 3
EXISTING USE: ADJACENT USES: VIEWS: MISCELLANEOUS:	Office, retail(Bildner's) Residential, public pedestrian & vehicle None Incredibly detailed exterior & interior	access
HIGHEST & BEST USE:	Uttice Composition	
ITEN:	CURRENT CONDITION:	RECOMMENDED REPAIR:
FACADE: WINDOWS: ROOF:	Brownstone, good condition Orig double hung, good cond., no storms Good condition	Add storms, (replace with energy eff.)
INTERIOR CONDITIONS: LOBBY:	Beautiful marble entry,wood floors	
STAIRS:	Int. fire str, grnd 3-stry wd, carpeted	
FLOORS: WALLS/CEILINGS:	Wood, carpet, good cond. Nice detail, good cond.	
ELEVATORS: CABS: EQUIPMENT:	Large metal panel, cage type Cable system in basement, operator run	
MECHANICAL SYSTEMS: HEATING: AIR CONDITIONING:	All new 1st flr, Older boiler – rest Some window units, partial cntrl sys	Evaluate for future use
PLUMBING EQPT.: DISTRIBUTION:	Looks new Copper?, new drainage & fixtures	Evaluate for future use Evaluate for future use
SERVICE: DISTRIBUTION:	800 amp, all new for Biltner's New to upper floors	Evaluate for future use Evaluate for future use
FIRE SAFETY: FIRE ALARM: EMERGENCY LIGHTS: SPRINKLERS: COMMENTS:	New New New	

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Exhibit 1M

PROPERTY INVENTORY -	21 COMMONWEALTH AVENUE	DATE: 27-Jun-85 UPDATED:	01-Aug-85
AREA SUMMARY:			
GROSS AREA:	9269 NET AREA: 6100 EFFICIENCY:	66% PARKING: 3	
<pre># FLOORS/COMMENTS:</pre>	4 plus basement		
EXISTING USE:	Classroom, office		
ADJACENT USES:	Residential		
VIEWS:	Commonwealth Avenue Mall		
MISCELLANEOUS:			
HIGHEST & BEST USE:	Condos, potential high end rental, single Nill require "out" rehab for residential	family, institutional	
LEGAL/ZONING STATUS:	will require gue renub for residencial	w3C1	
ITEN:	CURRENT CONDITION:	RECOMMENDED REPAIR:	
EXTERIOR CONDITIONS:			
FACADE:	Deteriorated brownstone, stairs fair	Restore	
WINDOWS:	Old, no storms, alum casing on ext trim	Replace with energy efficient	
ROOF:	Apparently OK< no leaks noted		
SETTLING:	No settling apparent.		
INTERIOR CONDITIONS:			
LOBBY:	Beautiful vest. & entry, det., marb. frpl		
STAIRS:	1st flr beaut.,inneff., fair cond.	Turn main stairs.	
CI 0000.	rife Stairs	Deducion for encidential upp	
FLUURD: WALLS/COTLINES.	VHI & Carpet	Redesign for residential use.	
WHLLD/GEILINDD; CIEUATADO.		Recession for residencial use.	
CLEVHIURD:	None	Install shaft pont atr	
CONTONENT.	None	install shart, equit, etc.	
NECHANICAL CVCTENC.	חטווכ		
HEATING.	Forred hot air by das	Redecian for recidential use.	
ATR CONDITIONING:	None	Redesign for residential use.	
PLINRING FOPT.	014	Redesign for residential use.	
DISTRIBUTION:	034	Redesign for residential use.	
FLECTRICAL:			
SERVICE:	200 ann	Assume all new.	
DISTRIBUTION:	Old. some new romex in ceiling, no panels	Assume all new.	
FIRE SAFETY:			
FIRE ALARN:	6 zones, old		
ENERGENCY LIGHTS:	Yes		
SPRINKLERS:	None		
COMMENTS:			

Exhibit 1N












Exhibit 2F















Exhibit 2M 190







Exhibit 2Q















Exhibit 2X



Exhibit 2Y

UNEMPLOYMENT RATES FOR BOSTON, AND COMPARISONS WITH THE METRO AREA, STATE, REGION AND NATION SELECTED YEARS, 1970 TO 1985 (IN PERCENT)

BOSTON	BOSTON METRO AREA	MASSACHUSETTS	NEH ENGLAND	UNITED STATES
4.9	4.0	4.6	4.9	4.9
12.8	10.5	11.2	10.3	8.5
9.5	7.8	8.1	7.6	7.0
6.5	5.2	5.5	5.4	5.8
6.1	5.0	5.6	5.9	7.1
7.0	5.7	6.3	6.3	7.6
9.1	6.7	7.9	7.8	9.7
7.8	5.8	6.9	6.8	9.6
5.5	4.1	4.8	4.9	7.1
6.6	4.8	5.8	5.9	7.8
4.3	3.9	4.7	5.1	7.5
	BOSTON CITY 4.9 12.8 9.5 6.5 6.1 7.0 9.1 7.8 5.5 6.6 4.3	BOSTON CITY BOSTON METRO AREA 4.9 4.0 12.8 10.5 9.5 7.8 6.5 5.2 6.1 5.0 7.0 5.7 9.1 6.7 7.8 5.8 5.5 4.1 6.6 4.8 4.3 3.9	BOSTON CITY BOSTON METRO AREA MASSACHUSETTS 4.9 4.0 4.6 12.8 10.5 11.2 9.5 7.8 8.1 6.5 5.2 5.5 6.1 5.0 5.6 7.0 5.7 6.3 9.1 6.7 7.9 7.8 5.8 6.9 5.5 4.1 4.8 6.6 4.8 5.8 4.3 3.9 4.7	BOSTON CITY BOSTON METRO AREA MASSACHUSETTS ENGLAND NEH ENGLAND 4.9 4.0 4.6 4.9 12.8 10.5 11.2 10.3 9.5 7.8 8.1 7.6 6.5 5.2 5.5 5.4 6.1 5.0 5.6 5.9 7.0 5.7 6.3 6.3 9.1 6.7 7.9 7.8 7.8 5.8 6.9 6.8 5.5 4.1 4.8 4.9 6.6 4.8 5.8 5.9 4.3 3.9 4.7 5.1

* NOT SEASONALLY ADJUSTED

SOURCES: U.S. BUREAU OF LABOR STATISTICS; MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY.

JPB 6.10.85

TABLE 1

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CITY OF BOSTON EMPLOYMENT, 1976-1984 SELECTED YEARS AND CHANGE BY INDUSTRY

							CHANGE	1976-1984
INDUSTRY	1976	1977	1980	1982	1983	1984	NUMBER	PERCENT
*****			****					
AGRI.MINING	791	617	563	547	566	597	- 194	-24.6
CONSTRUCTION	9,003	7,914	10,163	10,445	10,346	9,239	236	2.6
MANUFACTURING	53,385	53,763	51,861	49,685	46,989	47,788	- 5,597	-10.5
TRANSPORTATION/PU.	34,131	32,982	36,660	36,120	39,514	40,857	6,726	19.7
WHOLESALE TRADE	29,619	29,827	27,399	25,051	26,028	27,407	- 2,212	- 7.5
RETAIL TRADE	55,008	54,849	55,628	55,197	56,522	62,598	7,590	13.8
FINANCE/INS/RE	62,229	63,366	70,451	76,584	76,245	77,694	15,465	24.9
SERVICES	160,902	161,988	187,991	193,602	199,017	204,868	43,966	27.3
HOTEL	4,689	4,731	6,495	6,389	6,568	7,220	2,531	54.0
MEDICAL	54,159	52,760	58,524	60,985	62,690	62,994	8,835	16.3
EDUCATIONAL	22,460	24,061	29,222	30,008	30,848	30,812	8,352	37.2
CULTURAL	4,837	4,820	4,800	4,840	4,975	5,144	307	6.4
SOCIAL/NONPROFIT	17,358	17,423	20,036	20,135	20,698	22,327	4,969	28.6
BUSINESS	29,044	28,994	33,808	34,461	35,425	38,374	9,330	32.1
PROFESSIONAL/OTHER	28,355	29,199	35,106	36,784	37,813	37,997	9,641	34.0
GOVERNMENT	85,048	85,882	96,017	89,142	91,717	93,368	8,320	9.8
PROPRIETORS	10,560	10,860	11,764	12,070	12,699	13,131	2,571	24.3
TOTAL ALL SECTORS	500,676	502,048	548,497	548,444	559,643	577,547	76,871	15.4

SOURCE: MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY, ES-202 SERIES; U.S. DEPARTMENT OF COMMERCE, BUREAU OF ECONOMIC ANALYSIS, UNPUBLISHED SERIES; BUREAU OF THE CENSUS, COUNTY BUSINESS PATTERNS, MASSACHUSETTS.

4.08.85 JPB

TABLE 5

CITY OF BOSTON EMPLOYMENT, 1984, 1990 AND 1995

				CHANGE 1	984-1990	CHANGE	1990-1995
INDUSTRY	1984	1990	1995	NUMBER	PERCENT	NUMBER	PERCENT
				******			*******
AGRI./MINING	597	514	526	- 83	-14.0	- 13	2.5
CONSTRUCTION	9,239	12,545	13,586	3,306	35.8	1,041	8.3
MANUFACTURING	47,788	55,250	57,460	7,462	15.6	2,210	4.0
TRANSPORTATION/PU.	40,857	40,599	43,117	- 258	- 0.6	2,517	6.2
MHOLESALE TRADE	27,407	27,481	28,497	74	0.3	1,017	3.7
RETAIL TRADE	62,598	62,649	65,531	51	0.1	2,882	4.6
FINANCE/INS/RE	77,964	90,446	95,782	12,482	16.0	5,336	5.9
SERVICES	204,868	238,132	270,994	33,264	16.2	32,862	13.8
HOTEL	7,220	10,707	12,003	3,487	48.3	1,296	12.1
MEDICAL	62,994	74,890	83,277	11,896	18.9	8,388	11.2
EDUCATIONAL	30,812	31,719	34,447	907	2.9	2,728	8.6
CULTURAL	5,144	5,576	5,749	432	8.4	173	3.1
SOCIAL/NONPROFIT	22,327	22,813	23,520	486	2.2	707	3.1
BUSINESS	38,374	47,281	54,042	8,907	23.2	6,761	14.3
PROFESSIONAL/OTHER	37,997	45,145	57,955	7,148	18.8	12,810	28.4
COVERNMENT	93,368	93,599	98,279	231	0.2	4,680	5.0
PROPRIETORS	13,131	10,260	8,721	- 2,871	-21.9	- 1,539	-15.0
TOTAL ALL SECTORS	577,547	631,474	682,494	53,927	9.3	51,019	8.1

SOURCE: MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY, ES-202 EMPLOYMENT SERIES AND EMPLOYMENT PROJECTIONS; U.S.DEPARTMENT OF COMMERCE, BUREAU OF ECONOMIC ANALYSIS, 'UNPUBLISHED EMPLOYMENT SERIES, SUFFOLK COUNTY; BUREAU OF THE CENSUS, COUNTY BUSINESS PATTERNS, MASSACHUSETTS; U.S.DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS.

04.12.85 JPB

Exhibit 5

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	Nominal <u>Effective Rate</u> ¹	Inflation Rate ²	Real Effective Rate ³		
1973	7.98	4.37	3.61		
1974	8.97	11.29	-2.32		
1975	9.17	10.55	-1.38		
1976	9.10	6.14	2.96		
1977	9.02	6.82	2.20		
1978	9.61	8.74	0.87		
1979	10.89	12.23	-1.34		
1980	12.90	15.69	-2.79		
1981	14.99	11.47	3.52		
1982	15.33	7.22	8.11		
1983	12.82	2.67	10.15		

ANNUAL AVERAGE MORTGAGE INTEREST RATES

For the United States, the contract interest rate plus fees and charges amortized over a ten-year period. Source: Federal Home Loan Bank Board.

Consumer Price Index for housing from the Bureau of Labor Statistics. Source: Economic Report of the President, 1984.

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The nominal effective rate minus the inflation rate.

Boston City and Downtown Property Taxes

The Effects of Proposition 2½ and Classification/Equalization FY1981 - 1984

	City Realty			Ward 3			Ward 5		
	FY81	FY84	% Change	FY81	FY84	% Change	FY81	<u>FY84</u>	% Change
<u>Total Taxes</u>									
(\$1,000s)	\$445,801	\$278,445	-37.5%	\$116,450	\$ 88,298	-24%	\$ 55,395	\$ 38,460	-31%
% Levy	86%	83.6%		22.5%	26.4%		10.7%	11.5%	
Average Taxes (\$s)									
1-Family*	1,395	875	-37%	(5,162)	1,450 **	(-72%)	(3,636)	4,808	(+32%)
Condos*	4,381	1,207	-72%		1,640	(-68%)		1,750	(-52%)
Apartments	7,962	3,566	-55%	4,566	2,351	-49%	9,221	6,023	-35%

*FY84 average tax bills for one-family and condominium properties are net of the owner-occupant exemption. Dwellings that were not owner-occupied would have paid \$110 more. Change in condominium taxes is very heavily influenced by the change in condominium composition.

**FY81 taxes for one-family homes and condominiums are combined averages for Wards 3 and 5.