

ADAPTIVE USE IN BOSTON: A DEVELOPER'S PERSPECTIVE
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by

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ABSTRACT

Adaptive use has become a popular development type in the 1980's. The recycling of obsolete structures to newer, more modern uses has not only saved these structures from demolition, but also contributed to the revitalization of the urban centers of cities. Boston, as one of the oldest cities in the U.S., has an abundance of structures suitable for adaptive use such as factories, warehouses, wharf buildings and schools. This paper focuses on the adaptive use activity in Boston, which started over 20 years ago, from the perspective of the developers who undertake these projects

For some background on the national historic preservation movement, of which adaptive use development was a product, research was done on the history of the federal government's involvement with the movement and the socio-economic influences that made this type of development popular. In order to begin the discussion on Boston in particular, the public agency framework in Boston was briefly described.

Seven developers in Boston who have done adaptive use projects were interviewed to gain insights into the adaptive use development process. These firms represent a cross section of developers who vary in size, motivation and philosophy. Their personal experiences provided information on the advantages of adaptive use relative to new construction; the developer's goals and objectives; the risks involved in adaptive use projects and how they attempt to mitigate those risks; and the factors influencing the success of an adaptive use project.

For the final analysis, a summary of development in Boston done by the Boston Redevelopment Authority Research Department provided data which was analyzed to determine where adaptive used development has occurred in Boston, the magnitude and cost of this development and the construction costs associated with adaptive use. It also provided information on new construction which allowed for comparisons between these two types of development. Another study done by the BRA allowed for the analysis of the impact of the historic tax credits. This data, along with the developer interviews, provided insight into the nature of past adaptive use development and questions regarding the future.

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Introduction

Research Questions

Because Boston is one of the oldest cities in the United States, it has an abundance of older buildings whose uses have become obsolete. Over the past 20 years, an increasing number of these buildings have been rehabilitated and recycled. Who are the developers of these projects? What has motivated them to undertake the rehabilitation of these buildings? How has adaptive use changed over the past 20 years?

When we look at the developers for these types of projects in Boston, we see a variety of firms that have developed adaptive use projects. No one developer appears to dominate the rehab market in Boston. In contrast, relatively few architectural firms were involved in a number of the projects. These development firms have varied in size, background, experience, location, and philosophy.

What are the factors that influence the success of these firms and their projects? What are the developer's goals and objectives? How is success measured in adaptive use projects? What are the risks particular to adaptive use projects that these firms must deal with? How are these risks mitigated? What are the trends in adaptive use in Boston? What is the future of adaptive use, especially in light of the recent reduction in tax credits?

Definition of Adaptive Use

This study focuses on adaptive use projects, as those require the most intensive refitting of the structure and the largest capital expenditures (similar in scale to new construction). The geographical area of focus is limited to Boston and Cambridge. Adaptive use, renovation and restoration are all aspects of historic preservation. It is important to understand the differences between these three terms because they are mistakenly used interchangeably. Adaptive use involves converting buildings that are structurally sound to a new use that will be economically feasible. Renovation is the physical upgrading of a building while maintaining its original use, and restoration is merely the refurbishment of a building's original details and use as closely as possible.

Until the early twentieth century, buildings were held in esteem because they were places where a historically significant person lived or a great event

took place, not because of their inherent architectural quality.¹ These were typically converted to museums. In the early days of the historic preservation movement, there were those who believed that restoration should not be the only goal of this movement. At the first organizational meeting of the National Council for Historic Sites and Buildings held in 1947, Thomas Waterman, a restoration architect whose specialty was Virginian houses, staunchly supported adaptive use. He believed that buildings "lose vitality" when restored for exhibition purposes only and favored a state system of grants that would encourage private owners to maintain those properties without turning all of them into museums.² Walter Muir Whitehill also supported this view. He wrote in With Heritage So Rich:

Let us save what we have around us that is good, not for exhibition, not for education, but for practical uses as places to live in and to work in.

The 1950's saw a growing interest by the private sector in re-use of old buildings as a business investment.

Adaptive use evolved from the realization that it was practically impossible to remain purist about the function of a building. This realization has been the most important aspect of historic preservation and the revitalization of cities. Buildings that have been adapted provide special interest and stimulation with regard to the city's heritage. Gerald Crane, chairman of the Department of Urban Planning at the University of Michigan, observes:

Adaptive reuse, as I interpret it, is more than preserving old buildings for the sake of sentiment and history, but it is an attempt to incorporate and blend new buildings with older ones and to modify and use them to serve contemporary needs.³

¹ Special Committee on Historic Preservation - US Conference of Mayors, *With Heritage So Rich*, 1966, 37.

² Hosmer, Charles B., *Preservation Comes of Age (1926-49)*, 1980.

³ Redstone, Louis G., *The New Downtowns: Rebuilding Business Districts*, 19 , 299.

Chapter One: Background/History of the Preservation Movement

A Brief History of the National Historic Preservation Movement

Historic preservation has enjoyed growing national attention since the beginning of this century. The history of the national historic preservation movement reflects the concerns of a young country that had begun to realize the importance of protecting its heritage.

The first official involvement by the federal government occurred in 1906 when Congress passed the Antiquities Act. Under this Act, the President was authorized to proclaim buildings and landmarks on federal property as national monuments. Ten years later, the National Park Service was created within the Department of the Interior to provide for the preservation and restoration of these significant historic properties. In the next fifty years, the National Park Service acquired custody of 26 million acres of parks and historic buildings.

The National Council on Historic Sites and Buildings was organized in 1947. However in 1949, Congress set up a private, non-profit entity, the National Trust for Historic Preservation, because they realized their earlier efforts in this area had been insufficient. Its mandate was threefold:

- o Facilitate public participation in preservation.
- o Receive donations of sites, buildings, etc.
- o Administer gifts and money for preservation projects.

The Trust also provided a link between the National Park Service and private groups. In its early years, the Trust attracted "antiquarians, dilettantes and activists who had little grasp of economics, politics and publicity".⁴ The 1960's, however, saw the Trust emerge as a national movement with the greatest initiatives found in the private sector. The emphasis during this period was on historic monuments and "architectural gems". In the 1970's, the focus of preservation broadened to include more commonplace structures. A more complete account of the history of the preservation movement can be found in Charles B. Hosmer's Presence of the Past: A History of the Preservation Movement in the US before Williamsburg.

The federal commitment to preservation expanded when Congress approved the National Historic Preservation Act (NHPA) in 1966. This evolved from a study organized by the US Conference of Mayors entitled With Heritage So Rich. This act provided for the following:

⁴ Diamonstein, Barbarlee, *Buildings Reborn: New Uses, Old Places*, 1978, 16.

- o National Register of Historic Places set up to inventory all resources.
- o National Historic Preservation Fund established to provide grants-in-aid to states carrying out NHPA.
- o Established a Cabinet level body (Advisory Council on Historic Preservation-ACHP)
- o Review process by ACHP to evaluate federal actions affecting historic properties.

In 1972, the Surplus Property Act was passed. This act permitted the General Services Administration (GSA) to transfer historically/architecturally significant buildings to a locality for one dollar in exchange for promises to preserve and re-use the structure. This proved to be a great boon for the preservation movement.

The Tax Reform Act of 1976 and the Economic Recovery Act of 1981 gave real economic incentives to the private sector with regard to preservation and reuse of old buildings. The Tax Reform Act of 1976, Section 2124, provided for the deduction of expenses incurred for demolition and the rapid depreciation of the improved property. It also removed accelerated depreciation for new construction that replaced a certified historic property and disallowed deduction of demolition costs as a construction expense. The Economic Recovery Act provided a three-tiered system of investment tax credits depending on landmark status or age of the building. The highest tier provided a 25% credit for the cost of rehabilitation if it met the Secretary of Interior's Standards for the Rehabilitation of Historic Buildings. These buildings must be listed on the National Register of Historic Places or be in a certified Historic District. These credits were especially appealing because they were deductible from taxes owed as opposed to gross income.

In 1983 and 1984, \$2.2 billion of rehabilitation was generated annually through federal tax incentives.⁵ According to J. Jackson Wallach, president of the National Trust for Historic Preservation, "two thirds of these wouldn't have happened without the incentives". The tax incentives were a very important factor with respect to the amount of rehabilitation projects done between 1976 and 1986. It remains to be seen whether there is still enough financial incentive left after the Tax Reform Act of 1986 to maintain this trend. Perhaps the other factors that motivate developers to undertake adaptive use projects will be sufficient to sustain the trend.

⁵ Diamonstein, Barbarlee, *Remaking America*, 1986, 11.

Socio-Economic Influences (Early Motivations)

A number of factors had been responsible for the increased popularity of the preservation movement across the United States in the late 1960's and early 1970's. One such factor was a reaction to the urban renewal of the 1950's and 1960's. These areas, usually in urban centers, "soon became places of crime and alienation which accelerated the decay of downtown and the flight to the suburbs."⁶

The recession in the early 1970's hit the construction industry very hard. Bulldozers came to a halt. The opportunities to demolish and build from scratch dwindled. Construction costs increased. Adaptive use appeared to be a logical solution. Preservationists were quick to take advantage and pointed out that renovation work was more labor intensive than new construction. They emphasized that for every million dollars of renovation work, 107 jobs were generated as compared with 68 for new construction.⁷ Adaptive use is not always less expensive than new construction, however. The relative economy or expense of the rehabilitation depends on the specific situation. If a developer has to rebuild the structure or extensively restore architectural details to strict historic standards, adaptive use can be more expensive than new construction. It was the opinions of Giorgio Cavaglieri, a noted recycler who adapted the Astor Library for the New York Shakespeare Theater, and the Jefferson Market Courthouse for the Public Library System, and George Notter of the architectural firm Notter, Feingold and Alexander, "that re-use is not necessarily cheaper, not if it is done well".⁸

The energy crisis of the 1970's forced upon this country the realization that our resources were finite. Because older structures had been built at a time when the investment of labor and energy costs were lower, people began to realize the wastefulness of the demolition of these existing buildings.

Preparations for the upcoming bicentennial celebration of the country were also underway. The patriotic spirit of this event increased the awareness of preserving the country's heritage. Books such as Space Adrift, by John J. Costonis, reflected this growing concern and discussed economically viable alternatives to the demolition of these historic structures.

⁶ Diamonstein, Barbaralee, *Buildings Reborn: new uses, old places*, 1978, 16.

⁷ Ibid., 17.

⁸ Ibid., 26.

Preservation increased in popularity partially in response to the decline in popularity of modern architecture. People were rejecting the "impersonal and brutal minimalism"⁹ this style embodied and the notion that the old forms should be discarded to make way for the new. According to urban designer, Jonathan Barnett:

Adaptive re-use of old buildings is also a form of architectural criticism; people reject many of the new buildings they see, preferring what they have to what they expect to get instead.¹⁰

While these motivations were common to the preservation movement in general and adaptive use in particular, there were other reasons specific to adaptive use. These had to do with the social trends of the 1970's, with the increased number of women in the work force and the increased demand for urban housing. Along with an increasing number of families having two wage earners came changes in their lifestyles, too. Time became a more treasured commodity. Families responded by moving closer to their places of employment. Those who worked in the downtowns found the housing supply lacking there and looked to rehabilitation and adaptive use of older buildings as a viable alternative. A report for the National Council for Urban Development suggested some reasons for this phenomenon: buying and fixing up the old costs less than building new; older is better; length and cost of commuting; more amenities provided in the cities; city living safe again; and impending energy crunch.¹¹

The first preservation projects involved renovating blue chip residential areas such as Georgetown in Washington D.C., and Society Hill in Philadelphia. By the mid 1970's, as demand increased and center city prices skyrocketed, the movement started to incorporate less distinct residential neighborhoods and buildings such as mills, factories and schools.

Adaptive use also had its critics among strict preservationists who felt that a "boutiquefication" phenomenon had occurred with too many of these projects.¹² This, they felt, cheapened the restoration and recycling work, making it too trendy.

⁹ Ibid., 17.

¹⁰ Ibid., 15.

¹¹ Ibid., 16.

¹² Ibid., 22.

Boston Public Agency Framework

The growing importance of the preservation movement on the national level was also seen at the state and local levels. No other building type had access to the variety of public and quasi-public resources as that of a landmark building or structure in a historic district. Cities and communities began to recognize that preserving these buildings was an important public benefit. At the outset of this movement, private financing was difficult to obtain due to the unique nature of these projects and speculation as to their marketability. To understand why developers became involved in adaptive use projects in Boston, it is important to know what kind of local agencies and mechanisms were available for their use.

Preservation development has been dense in the Massachusetts, Connecticut, and Rhode Island region. In particular, downtown Boston has experienced dramatic growth and change. Twenty years ago, shipping and industrial activity had diminished leaving empty warehouses and factories on the Boston waterfront. Today, because of the actions of public agencies, private developers, community groups and preservationists, these underused buildings have been adapted to offices and residences that have rejuvenated this area.

Boston has three development agencies: the Boston Redevelopment Authority (BRA), the Economic Development and Industrial Corporation (EDIC), and the Neighborhood Development and Employment Agency (NDEA).

The BRA was established in 1957 at the request of the Mayor and the City Council. Its responsibilities include urban renewal and planning activities in the City of Boston. It played an important role in the early 1970's with the Old City Hall and Faneuil Square Marketplace projects. By leasing the land from the BRA and negotiating payments in lieu of taxes, these projects were made economically feasible.

The EDIC, established in 1971 by state legislation, is mandated to stem the loss of industry and industrial jobs in Boston, revitalize underused land, and enhance the city's tax base. The NDEA is the local administrator of Community Development Block Grant programs and employment training funds.

The Massachusetts Housing Finance Agency (MHFA) has also been an active player in adaptive use projects. MHFA is a semi-autonomous, state created bonding authority founded in 1966 to facilitate creation of rental housing by granting mortgage loans to nonprofit and limited dividend developers. They have

provided financial assistance for such adaptive use projects as: Assumption House in East Boston and Mercantile Wharf.

The city has been able to assist developers undertaking adaptive reuse projects through public improvements (urban renewal funds or the city's Capital Improvements Program) and public policy (zoning, urban renewal planning, tax abatements or incentives, and architectural, historic district and landmark commissions). They have also provided assistance in the land acquisition process and helped reduce the costs through such mechanisms as: sale of urban renewal land; long term leases; and the GSA transfer of property. Operating costs can also be reduced through assistance programs such as: Section 312 loans (NHPA); MHFA; Section 236 - federal mortgage subsidies; and Chapter 121A of the Massachusetts General Laws (special property tax provisions). The goals and objectives of these public agencies are to increase the tax base of the city, revitalize declining urban areas, create jobs, and ensure greater stability and safety in the community.

Local preservation groups include the Massachusetts Historical Commission, Boston Landmark Commission, Boston Preservation Alliance, Historic Massachusetts, Inc., and Historic Boston, Inc.

The Massachusetts Historical Commission is the state level preservation group associated with the National Trust for Historic Preservation. They administer the National Park Service's matching grants-in-aid program and make nominations for structures to be placed on the National Register of Historic Places (these also have to be approved by the National Register office in Washington D.C.).

The Boston Landmarks Commission (BLC) was established in 1975 by a special act of the legislature as a mechanism for the orderly preservation of the city's historic buildings. It allows for the recognition of buildings of importance to the city's legacy through a Boston Landmarks Commission Designation. The BLC provides a systematic design review process to determine this Designation. This involves: preparation of a study report; a public hearing; and approval by the Mayor and City Council as well as the Commission.¹³ The building must be

¹³ Boston Landmarks Commission, *Central Business District Preservation Study, Part II*, 1980, 17.

significant "to the City and the Commonwealth, the New England Region or the Nation." 14

Historic Boston, Inc. and Historic Massachusetts, Inc. are private charitable corporations that are subsidiaries of Architectural Heritage Foundation. They have carried out real estate and financial transactions to preserve the cultural values of Boston architecture through the use of revolving funds¹⁵ and loans (to acquire options or purchase buildings). At the present time, there is no private funding source available specifically for adaptive use.

The goals and objectives of these groups are to save the integrity of the built environment and assist local communities in efforts to acquire, restore, relocate, and preserve architectural properties for public use and benefit.

Conclusion

This chapter has attempted to provide some background on the general social issues involved with the historic preservation movement on a national level. These issues of the 1960's and 1970's give some indication of the popular thoughts and concerns of this period when adaptive use development first began. In each city where adaptive use has occurred, the motivations have been some variation on these issues, however, each location has a different story to tell.

In the following chapters, the focus will be on adaptive use projects and their developers in the Boston and Cambridge area. To begin this discussion, a brief description of the public and private agencies that have been involved in some way with the historic preservation movement was provided above. This list of agencies is not comprehensive, but merely a cross section of what actually exists.

14 Chapter 772 of the Acts of 1975.

15 Revolving funds provide loans and grants for buying and rehabbing historic structures. As the loans are made and income generated, more loans can be made.

Chapter Two: Developer's Goals and Objectives

Research Methodology

The remainder of this paper looks at a cross section of firms who have done adaptive use projects in Boston. Seven development firms located in the Boston area were interviewed with regard to their firms and specific information on adaptive use projects they have done. In addition, lenders and brokers who were familiar with this product type were sources of market information and attitudes. Through these interviews, some interesting insights were gained concerning the types of adaptive use projects done and the firms that do them. A theme throughout this discussion was how adaptive use projects compare with new construction. The firms discussed are as follows:

Old City Hall Landmark Corporation is a non-profit corporation founded by Roger Webb to rehabilitate the Old City Hall in the late 1960's. It is a holding company for the parent organization, Architectural Heritage Foundation. The philosophy of this firm reflects its founder's preservationist personality. The Old City Hall, which was converted to office space, was the only project done under this entity, although separate development entities have been set up under Old City Hall Landmark Corporation to do other preservationist projects outside of Boston.

Massport is a quasi-public revenue bond authority of the state of Massachusetts whose responsibility is to run the port of Boston. It also has a mandate as an economic development entity and is responsible for making sure all the property it oversees is being put to its best economic use. Because it can not sell any of its property, it has found itself in the real estate development business attempting to improve the economics of some of their distressed and obsolete properties. For some projects, such as the Fish Pier (redeveloped facilities for the fishing industry), Massport has been the sole developer. Others, such as The World Trade Center at Commonwealth Pier, a mixed use development with office, exhibition space and a high tech trade mart, have involved private developers as development partners. Any development done by Massport is carefully analyzed for conformance with its mandate.

The Athenaeum Group is a partnership, formed in 1980, consisting of three principals. The partnership was formed with the intent of doing One Kendall Square, a mixed use project consisting of retail and office space in East

Cambridge. This five phase project (of which three are currently completed and Phase IV is under construction) has been this firm's focus since its inception. The firm's development activities are concentrated in Cambridge with ninety percent of their work being rehabilitation and all of their projects, commercial. The principals in this firm have lived and worked in Cambridge for a number of years.

Renaissance Properties is a ten year old partnership consisting of two principals who have worked exclusively in the South End. They started by renovating old townhouses, and through the years, have increased the scale of their projects. The majority of their work has been residential rehabilitation (apartments and condominiums), but they have done some new construction in One Clarendon Square, a residential project in the South End, and smaller commercial buildings such as the Electric Carriage House (office). This firm had a long term commitment to the South End neighborhood and credibility within this community was an important consideration in any development projects they undertake.

The Gunwyn Company was established by Graham Gund as a natural offshoot of his architecture and planning firm, Graham Gund & Associates. The development firm "creates opportunities for design" for the architectural entity. They focus their adaptive use projects on buildings that are prominent, well-built structures in desirable urban locations. Approximately 75% of their projects are adaptive use or renovation. They do both residential and commercial buildings. The majority of their projects are in Boston and Cambridge, however, they have done projects in other geographic regions.

A.W. Perry is a family owned business founded in 1884 and currently, in its fourth generation of family management. Over the years, the company has bought and sold real estate in downtown Boston and in other Massachusetts locations. They have entered the adaptive use field because several buildings they have owned for a number of years were obsolete and did not attract the rents and tenants that their locations could command. Rehabilitating 420 Boylston (Back Bay) and 20 Winthrop Square (Financial District) to office and retail use provided an economically viable alternative because of their attractive locations and because the company's basis in these buildings was so low (they had held onto them for so many years, selling them would have meant a tremendous tax liability).

The Raymond Cattle Company was founded in 1970 by Ted Raymond as a real estate and agricultural business. The majority of the company's real estate holdings are in the Boston area. Many of the past adaptive use projects done by this firm, such as the Ames Webster House - a mansion converted to offices in the Back Bay; the Exeter Street Theatre - a temple converted to a movie theatre and restaurant in the Back Bay; and One Winthrop Square - an office rehab in the Financial District, have been the result of a conscious decision on the part of this company to acquire unique properties. They recognized the potential these buildings had before rehabilitated space was popular, and took advantage of the opportunities presented them.

A more complete description of these firms and the projects they have done can be found in Appendices A and B.

Advantages Relative to New Construction

There are several economic reasons that explain why adaptive reuse projects can provide better investments than new construction. Because rehabilitation is more labor intensive than new construction, adaptive use projects are not impacted as heavily by rising material costs as new construction. In most cases, rehabilitation takes less time to complete than new construction. In their 420 Boylston project, John Spurr Jr. (A.W. Perry) said that the cost savings on this project were due to the shortened construction duration, and therefore, lower carrying costs. For these reasons, rehabilitation costs have been less than new construction.

In addition to lower construction costs and shorter construction schedules, adaptive use has historically had lower acquisition costs. An existing building can often times be cheaper than undeveloped land. This was most often the case in the late 1970's and early 1980's, but as rehabilitated office space has become more widely accepted and proven and the number of good buildings left to rehab diminishes, the price for existing shells in the better locations continue to rise, and developers must look to alternative locations in close proximity to these areas in order to find building shells for lower prices. For instance, shells now in the Fort Point Channel area are selling for \$50-\$55 per square foot while shells in the Financial District (there is no longer undeveloped land for new construction in the Financial District) are selling for an average of \$100 per square foot.¹⁶ In

¹⁶ Wheatley, Ted, Coldwell Banker broker.

addition, the adaptive use developer has the savings in demolition costs. Rising building shell costs may nullify these advantage in the future. Developers such as A.W. Perry, who have bought buildings over the years for their portfolio, have a distinct advantage because they acquired these buildings when acquisition costs were lower.

Adaptive use projects are, in most cases, able to undercut the rents of similiar quality new construction. Old City Hall, after it was completed, was attracting tenants (Summers Insurance Agency and First National Bank of Boston) that had the budgets to move into the new office buildings being completed at that time and was able to charge \$6 - \$6.50 per square foot rents compared to the \$7 rents charged for new construction. In the new towers in the financial district today, rents will range from \$30 per square foot to \$60 per square foot for prime office space at the prestigious towers. In comparison, rehabbed space rents will range from \$23-\$27 per square foot (effective rents \$2-\$3 lower).¹⁷ In effect, the adaptive use projects are competing with the lower floors of the office towers. Frank Nelson of Cushman and Wakefield points out that:

The cost is certainly important to everyone. A rehab is an opportunity for law firms and financial firms to maximize their presence by having an entire floor in a building. When you start getting into overlapping rents, you have to ask where you get the best value for your dollar - One Liberty Square, or the lower floors in an office tower?"

The lease term in Boston for rehabbed space tends to be shorter with five year leases as compared with ten year leases for new construction.¹⁸

As discussed in Chapter One, the tax incentives and public funding available for historic rehabilitations are an advantage that does not exist for new construction. The Tax Reform Act of 1986 has reduced some of the benefits that existed for historic rehabilitation. One of the changes replaces the former three-tier rehabilitation credit with a two-tier credit. A 20% credit is involved for certified historic structures (previously 25%) and a 10% credit replaces the other two categories (formerly 20% and 15% depending on the age of the building). In addition, the rehabilitation credit may be used to offset tax on up to \$25,000 of

17 Klapp, Tim, Coldwell Banker broker.

18 Ibid.

nonpassive income, regardless of the individual's participation. This credit against nonpassive income is phased-out between \$200,000 and \$250,000 of adjusted gross income. These changes have made the credits much less valuable to some individuals. Funds and incentives are also available from different public and private sources which will bear some of the costs if the project and/or developer qualifies. One example of this is a matching grant program sponsored by the National Endowment for the Arts for research, program development and creative design studies, however, capital improvement and acquisition costs are not eligible.

Another advantage that adaptive use projects have is the type of service they can provide their tenants. John Spurr Jr.(A.W. Perry) explains that "in a small building [such as the typical adaptive use project] the tenants can be treated as people and not as numbers. People in rehabs like the personal touch". He also observed that smaller tenants liked rehabilitated buildings because they did not get this personalized treatment in new, larger projects.

Because the existing building remains in place and is being adapted to a more economic use, there are fewer social and public costs imposed on the locality as opposed to new construction. This can translate into increased community support for the project and fewer regulatory delays. It can also lead to displacement, but that can be the result of development in general, not just adaptive use projects.

Landmark status for a developer's building can be an advantage or a disadvantage. Some of the advantages include: tax abatements/incentives, increase in image and marketability of project, and access to funding for certain public improvements. For the World Trade Center at Commonwealth Pier, landmark status played an important role in the project's development. For this project, only the headhouse was designated a landmark. This proved to be a strategic move because, due to the project's location and large scale, it needed the prestige and tax credits to entice the private sector (all of the landmark designation work had been done as part of the upfront feasibility study done by Massport), which it did. In addition, because the rules on historic rehabilitation were very strict, it was desirable not to have the whole structure designated as a landmark. The remainder of the pier, which was not architecturally unique, could be adapted less restrictively than the headhouse.

The disadvantages include: restrictive guidelines, delays, implementation problems, and loss of opportunity to redevelop site to a more profitable use. An

example of an implementation problem is the rehabilitation of Mercantile Wharf, a mixed use development on the Boston waterfront. Due to its landmark status and the conformance to historic preservation guidelines such status demanded, the views from the upper floors were limited because the historic preservation of the exterior required the existing smaller windows to remain and none could be added. John Spurr, Jr. (A.W. Perry) indicated that, as a building owner, landmark status was undesirable because it limited the owner's options on the disposition of the building. They ended up obtaining landmark status on their 420 Boylston project because they were doing the adaptive use within the guidelines anyway. Michael Leabmen (Renaissance Properties) had a more mixed reaction to the designation. Since most of their work is residential, it does not make a difference on the projects that are condominiums. For apartments, however, it can provide a good tax break.

In addition to these economic advantages for adaptive use, there are other hidden assets whose value cannot be assessed. These include: choice locations; spaciousness and sense of scale; sound construction; pleasing aesthetics; and architectural detail that cannot be duplicated.

Architectural Merit

The most common response received to the question of why developers do adaptive use projects was they "liked old buildings". Of course these developers were also looking for a financial return on their investment. In addition, the recycling of an old building may not be the most economically successful use of the site, yet developers still continue to rehabilitate old buildings.

Roger Webb (Old City Hall Landmark Corporation) became involved with this type of development because of his preservationist nature, his "excitement about old buildings" and the feeling that "the city [Boston] was being lost". When he is assessing whether or not a building should be saved, he looks to see if it is an important part of the cityscape, represents a rare or unusual architectural style, and is in danger of being demolished. He concurred with Walter Muir Whitehill's¹⁹ assessment that these historic structures could be adapted to a

¹⁹ Walter Muir Whitehill was the first person to go to then Mayor Collins to persuade the mayor that the Old City Hall should not be demolished after the new City Hall was completed. He proposed that some economically viable use be found for the structure. He also was a board member of the Old City Hall Landmark Corporation.

more practical, economic use. The mandate of Webb's nonprofit corporation characterized his objectives to "preserve the best of the man-made environment".

Buildings that have been adapted for new uses are not restricted to those that are registered as landmark buildings. Boston's abundance of older structures that have outlived their functions has prompted developers to respond with creative reuse plans for buildings such as schools, factories, mills and warehouses. Schools, because of their availability due to the surplus of these structures and their location in residential neighborhoods, have been especially suitable for conversion to residential uses.

Is every old building worth saving? What architectural qualities make a building worth saving? When the developers interviewed were asked these questions, a variety of responses were obtained. Dick Bland's (Raymond Cattle Company) reply was, at first, they were interested in a certain style of building, namely pre-1900's Richardsonian Romanesque. In recent years, though, he said they have relied on the opinions of town and city planners as to what buildings are worth saving.

Michael Leabmen (Renaissance Properties) said the qualities they look for in a potential rehab is whether or not the condition is salvageable and whether the building has enough character to merit renovation. He gives the example that if he looks at a warehouse to turn into apartments or condos and it does not "look residential", because of scale, exterior detailing, massing, etc., they will not do the project. On the other hand, they might look at a school that has a "residential look" and setting to it. This, they feel, will be the better candidate for adaptive use. The location of the building is an important factor in this assessment.

The Gunwyn Company looks at potential candidates for adaptive use with an eye for the "high design potential" of the structure. Their objective in undertaking adaptive use projects, as explained by Richard Backer, a project manager for the firm, is to create an opportunity for both the architectural and development companies to create a "high profile design in a high profile location". They have no specific criteria for what qualities make a building worth saving, rather they rely on the vision of the people who work there and their subjective assessment of whether the building possesses the design potential.

Financial

Financial success is always a prime motivation for undertaking any development project. No developer will proceed with a project if they cannot expect some kind of financial return. Most developers agreed that the returns on adaptive use projects were comparable with those of new construction.

There are many motivations for creating value through an adaptive use project. One such motivation is that the use of the structure has become obsolete. This was the situation in which A.W. Perry found itself with Twenty Winthrop Square. This five story structure, built in 1875, had been purchased from Hartford Life Insurance in 1968. In the early 1980's, they found themselves with a structurally sound building in a prime downtown location in the financial district that was partially rented to low budget tenants (health club and a school). By that time, rehabilitated office space had become marketable, and the decision was made to update and change the use of this building so that it would be competitive with new office space in the financial district.

Another example is Chauncy House, located in downtown Boston. This building, with an ideal location within walking distance of downtown department stores, had a 60% vacancy as an office use. Six weeks after the rehabilitation was completed on its conversion to residential use, the building was 100% leased even without parking.

Today we recognize the value of a unique building in a good location, but in the early days of adaptive use, this was not always the case. Ted Raymond of the Raymond Cattle Company recognized this fact early. He was presented with the opportunity to purchase One Winthrop Square and did so because of the advantages this building had to offer. Even though the building was only five stories high, it contained a large amount of rentable floor space because the building filled the entire lot (something new construction could not do) and the building was highly efficient (86% gross to leasable square feet). In addition, the spaces could be renovated according to demand and the cost of renovation to first class office space was cheaper than new construction. Although, they were offering a new product (Class A office space in an old building) in the financial district, Raymond was convinced that there was a strong demand for commercial space in a renovated building in this market. This proved to be an accurate assessment and the project illustrated that rehabilitated office space was feasible in a high density development area.

Another financial motivation is the diversification of the developer's portfolio, especially if they are holding on to the property for the long term. Whether the use is commercial or residential, adaptive use projects appeal to a different market than new construction. According to Richard Bland, head of marketing for the Raymond Group, the tenant that rents rehabbed space is more individualistic in character. They also tend to be smaller companies because the spaces do not usually conform to the stricter standards of larger companies in that the floor plate may be too small or awkwardly shaped and the spacing of columns may be irregular. The smaller companies are usually looking for an identity out of the place they rent, much like bigger firms do in office towers. Richard Backer (Gunwyn Co.) concurred with the smaller tenant profile and said their tenants liked these spaces because of the "strong, solid image" the project and developer evoked. If the tenant was looking for a "glitzy" image, they would prefer a new downtown office tower to one of their rehab projects.

John Spurr, Jr. (A.W. Perry) described two types of tenants. The larger tenants, he stated, were those who like space in the new office buildings. He said although those people like the services associated with the new building, the primary reason for not moving into rehabbed space was the lack of parking spaces.

On the residential side, Michael Leabmen (Renaissance Properties) has found that, in the same basic urban location, more older, established people like high rises (associated with new construction) and the younger, first time buyers are moving into the smaller rehabilitated buildings. In the larger adaptive use projects, however, he admits that there is more of a mixture because these projects combine the character of an old building with the modern conveniences and services associated with new construction (elevator, concierge, etc.).

A financial consideration for developers who started out with little capital was the realization that rehabilitation projects were an economic way to get started in the development field. Distressed properties could be obtained at a lower cost than undeveloped land. If the building was in sound condition, the construction costs would be lower than comparable new construction.

This was one of the motivations for Renaissance Properties decision to enter the development field by doing rehabilitation projects. In addition to the capital considerations, they were just starting out in the real estate development field and used this method as a way to learn the business and develop their skills. In this way, they could keep the risk at a level with which they were comfortable.

As each project was successfully completed, they would move on to another project that was more complex and larger in scale.

Most developers interviewed indicated tax credits were not the major motivation in doing adaptive use projects. For some developers, however, the tax credits have been important aspects of their project. Richard Backer (Gunwyn) indicated that the tax credits have been important to a number of their projects. Gunwyn is known for doing projects that other developers do not necessarily want to do in neighborhoods that are questionable. They have also been able to take advantage of city capital improvements programs as they did in their Bulfinch Square project in East Cambridge.

Unique Opportunities

Developers are always searching for an opportunity or a new deal to pursue. It is that inquisitiveness, along with creativity, that has inspired developers to undertake adaptive use projects. For example, Olympia & York, a large Canadian developer known for its large scale urban projects, used an adaptive use project in Boston to establish a local presence. They had no previous experience in this market, but wanted to do an office tower downtown (associated with a historic property). Because they were new to the area, however, they adopted a strategy which involved using an adaptive use project downtown as a training ground. This project, One Liberty Square, was completed in January 1982, and led to Olympia & York's subsequent development of Exchange Place.

Old City Hall was slated for demolition after the completion of New City Hall in the late 1960's. After Walter Muir Whitehill's appeal to then-Mayor Collins to consider an alternative use for the building, the mayor appointed a blue ribbon panel to estimate the cost of adapting the building. This panel came up with a figure of \$5 million for the adaptation, which was prohibitively expensive. Soon after that, Mayor White entered office and asked Roger Webb to do a feasibility study for the project (at the time, he was studying the feasibility of restoring Faneuil Hall). Mayor White was interested in finding an alternative to demolition for the building. Webb took on the assignment and found that the study done by the panel was incomplete, so he started from the beginning in coming up with a new figure. His study showed the building could be done for half the cost the panel had determined. At that point, Mayor White decided to hold a nationwide competition for the redevelopment of this project, even though Webb had done all

the preliminary work and wanted the job. The competition had only two serious entrants, and Webb's firm won it. Even though few adaptive use projects had taken place by this time, he felt this was an opportunity that could not be passed by.

The Ames Webster House, a Back Bay mansion, was purchased by the Raymond Cattle Company and turned into offices. According to the developer, the project would have been more profitable if it had been converted to condominiums which they could then have turned around and sold. Because the building was already zoned for office and was the only permissible office use on that particular block, the developer felt it had intrinsic value and would provide a good longer term investment.

The Berkeley at 420 Boylston offered a unique opportunity for its developer, A.W. Perry. This building (at the corner of Boylston and Berkeley) was the former Decorative Arts Center until Trammel Crow built a new facility in the suburbs and all the tenants relocated. Since all the leases had been terminated at one time, A.W. Perry recognized they had an opportunity to rehabilitate the building. The building itself was a certified historic landmark with a facade of glazed terra cotta (the best example of terra cotta in Boston). The building is nearing the completion of the rehabilitation and will be leased as first class office space.

At One Kendall Square, David Clem and his partners had the opportunity to acquire the 12-1/2 acre site with its associated buildings for \$5 per square foot. They recognized the key location and potential the old Woven Hose Factory had. They also realized that demolition costs alone would have exceeded that cost and that they could not build new as cheaply as rehabilitating the existing factory buildings.

In 1975, the Federal Reserve was trying to sell their old building as their new facility had just been completed. Beacon Companies was interested in purchasing the property to build a high-rise office tower. One of the stipulations of the sale was saving and reusing the old Federal Reserve Building. In order to gain control of the site, Beacon, who had never done a major rehabilitation project, had to reuse the existing building to gain control of the site. They ended up doing a mixed use project with a new office tower and the existing Federal Reserve Building turned into the Hotel Meridien.

Chapter Three: Risks

Market

The developers interviewed for this study felt the greatest risk for doing any type of development project is market risk. This, of course, has financial implications because even if the developer cannot lease the building when it comes onto the market, taxes and debt service²⁰ still must be paid. This concern is especially true for adaptive use projects because most of these are speculative buildings with little or no preleasing (except for condominiums). Preleasing is practically nonexistent because in rehabilitations, the tenant has trouble judging the quality of the space until construction is completed, even though the shell and facade of the building can be seen. This is due, in part, to the variations in the quality of the spaces that has occurred over the years, while in new construction office space is fairly standard and tenants can visualize the final product by looking at similar projects. Roger Webb (Old City Hall Landmark Corp.) described this risk in the Old City Hall project. At that time, the only other office rehab in downtown that had been done was the Sears' Crescent, but it had been done for the owner/tenant of the building. When studying the feasibility of Old City Hall, Webb had no information on how this type of space would be accepted in the market since none had been done. He attempted to prelease, but no one was interested in this unknown quantity, so the final result was a speculative office building.

Changes in the economy and new office market impact the marketability of adaptive use projects. Those general economic conditions which affect all development projects (i.e. high interest rates, stock market volatility, inflation, etc.) also impact adaptive use projects. Because it takes several years to plan and develop these projects, developers are exposed to changes in the economic climate. The success of a project can rest on the new office market also. Leasing terms for new office space, such as "free rent" and operating expense stops, affect the lease terms of adaptive use projects that must compete with them. The amount of newly constructed office space entering the market, vacancy rates, and leasing incentives offered in new office space are all intangibles in the planning stages.

²⁰ This will be debt service on the construction loan which will have a higher interest rate than the permanent mortgage because the permanent lender will normally not take over the loan until the building is a certain percentage leased.

The location of a project can also be a potential risk. Unless an area is proven, the developer may have problems attracting a market. Introducing a new use to an existing area that has different, even potentially conflicting uses, can be another risk. Many of these structures might be just out of the way of the key business districts or public transportation or have no parking. Although projects with such conditions have succeeded, the risk of failure was much higher. This was the case with the World Trade Center at Commonwealth Pier. Its location, just west of the Fort Point Channel, was considered too far away from the Central Business District by some even though it did have parking.

With new construction, locations can be chosen or discarded according to their marketability. With adaptive use, the location is a given. Sometimes prime candidates for adaptive use are in less than desirable locations. No matter how great the project might be, if the location has certain negative externalities, the venture will be risky.

Construction

No matter how much upfront investigation is done on an existing structure, surprises always occur during the construction phase. Most of these surprises are uncovered in the early stages of construction. The developers interviewed felt that the most significant unknown during construction was the structure. They felt that once the project was past the stage when all the structural problems were uncovered and solved, there were very few surprises. These can be anything from missing beams that were uncovered during the construction at 20 Winthrop Square, to piles that had rotted due to the drop in water table at One Kendall Square.

Due to the nature of the development process and the cost of preliminary studies, the exact condition of a building is often not known until after the building is designed, construction documents are completed and construction has begun. This type of risk is inherent in adaptive use projects, as opposed to new construction, where unknowns can be eliminated because there is no existing structure to deal with and less, but more thorough, upfront investigation involved.

Cost control is another important issue. Unexpected conditions will be uncovered during construction and the general contractor will want change orders to cover those items. This can quickly drive up the cost of the project if they are not accounted for in the budget. Banks who do construction lending for

adaptive use projects will require extra collateral to cover these overages or require the developer to fund them out of their own pocket. In the 420 Boylston project done by A.W. Perry, there was a significant number of change orders that resulted in a 5-8% increase in construction costs. Richard Backer (Gunwyn Co.) indicated that their company tended to make many changes during construction—more than the typical developer, and for that reason, their cost overruns tended to be higher than the 3-5% that was typical.

Cost estimation is also very difficult to do on adaptive use projects. It is unlike new construction where an estimator can be retained to give the developer a reasonable idea of what the actual construction costs will be. With the recycling of buildings, too many unknowns exist to get the same level of comfort found in new construction estimates.

Another implication of these hidden conditions is the delays they can cause in the construction schedule. When an unexpected condition is uncovered, it often involves consultations with the architect and/or engineer to find a new solution. This decisionmaking process can be slow if not managed properly. In addition, the implementation of that solution might cause even further delays depending on the nature of the work and materials required to resolve the problem.

The developers interviewed were asked whether it was desirable to have completed construction documents when starting the construction phase, or to fast track the project (starting construction before the design is complete), to take advantage of uncovering hidden conditions prior to completing the design. Fast tracking for new construction is generally a riskier alternative because construction has started before all the design details have been resolved. This can have the opposite of the desired effect and make the project longer and more expensive. Most developers agreed that fast tracking added risk to the project.

The experience of A.W. Perry at 420 Boylston, using the fast track method, indicated that this was not the ideal process. John Spurr, Jr. noted that fast tracking lead to some problems that would not have occurred if the drawings had been 100% complete, and resulted in no construction cost savings. Renaissance Properties uses the fast track method on most of their projects, even though they readily admit it is an added risk. They fast-track projects so they are able to start construction before the option agreement on the property runs out.

Regulatory

With the increasing number of public agencies and public review hearings involved in the development process, this aspect of development has become an important one to address because of the time and money it can cost the developer. Richard Bland (Raymond Group) emphasized this point as it applied to their Charlestown Navy Yard development.

There are ten substantive agencies involved including two state groups, four federal agencies, and four city agencies who can significantly alter the project.

This translates into delays and financial risks while the different points of contention are being resolved.

The Charlestown Navy Yard, however, is a unique development as it is a large scale parcel administered by the BRA that not only falls under the jurisdiction of the normal federal, state and local agencies associated with development, but also those dealing with historic and waterfront development.

Bland also mentioned the fact that the city and state offices located in the same city makes development more difficult. This, he felt, caused delays due to rivalries between the different levels of government, leaving the developer in the middle.

These risks, however, are greater for new construction than adaptive use. Most developers mentioned little or no resistance on the part of the community to proposed adaptive use projects. For One Kendall Square, there was only one public meeting and that had only minimal opposition for a proposed garage for the project. This cooperation is due, in part, to the fact that many of these developments are "as of right" and require no rezoning. In many cases, the developer is improving a derelict property which brings the associated benefits of security and physical improvements to the neighborhood. As mentioned in the previous chapter, there are fewer social and public costs imposed on the community.

One type of regulatory risk that is greater for adaptive use than new construction is associated with building code regulations. Building codes are oriented towards new construction and do not recognize the unique problems of recycling. This can lead to lengthy negotiations between the developer and the local building officials for a resolution to those problems. For instance, some

residential areas have a parking requirement. In adaptive use, the project does not usually have the available extra land to fulfill this requirement.

Scale of the Project

The size of the development itself might pose the biggest risk in an adaptive use project. This was the case with the World Trade Center at Commonwealth Pier. In new construction, a large scale project does not pose as much of a risk because it can be phased or it is in a highly marketable location. Neither was the case with the World Trade Center. This project consisted of one-million square feet of rehabilitated space. The construction had to take place at one time-it could not be done in phases. It also could not be done as exclusively office space because it could not compete with such a large volume of office space in its location in the Fort Point Channel area.

Another aspect of the scale risk deals with the amount of personal liability an individual must assume for a project. While this can be true of new and adaptive use development, the existence of the risks mentioned above magnify the importance of this risk with respect to adaptive use projects. Firms such as the Athenaeum Group, who are small development firms, may not have the capital to fund a large scale project even though they recognize the great potential of the project. The individual partners of the Athenaeum Group had been doing smaller scale rehabilitation projects on their own for a number of years. They formed a partnership to do the One Kendall Square project, which, when it is completed, will total one-million square feet at a total cost of \$100 million. In order for a small firm to initiate a project of this size, they had to put their personal assets on the line. In 1982 when the first phase was ready to begin, they had to go out of state to obtain financing for the project. David Clem, principal in the firm, says that now, in Phase IV, the local banks are all willing to finance the project.

Mitigation Measures

For all the risks described above, developers have used different methods to help balance the risk. For market risk, one such strategy is a thorough knowledge of and building to, a certain market. This has been the way in which Renaissance Properties and the Athenaeum Group have dealt with this development risk. They have gained this intuitive knowledge through living and

working in their respective communities over a long period of time. They understand the needs and unique opportunities that exist in their neighborhoods. Peter Madsen (Gunwyn Co.) explains this in the larger Boston context:

You have to have an idea of how a city will grow so that you can get in and develop properties before they become too expensive. While we do marketing studies, we do them mainly to prove to lenders what we already know will work.²¹

Creating a market niche is another way to offset this risk. By targeting a specific market and building to it, the developer can be very successful. One Kendall Square is an example of this. David Clem and his partners understood that the ideas generated out of Harvard and MIT were linked to a need for inexpensive office space for start up companies. They were able to provide office space for those tenants that was 25% cheaper than new office space. Clem referred to their company as a "venture capitalist developer". This strategy has proven successful, as the office portion of the project is 100% leased. Another example is the Chickering Piano factory in the South End. The developers of this project identified a market niche in this neighborhood by providing housing with working space for artists.

The strategies above are not as critical when the property has a highly desirable location. Projects such as 1 & 20 Winthrop Square and the Old City Hall were ideally located in the midst of the financial district. These buildings had to have as high quality of finishes as their new competition in order to succeed.

In order to mitigate some of the risk inherent in the construction of an adaptive use project, developers have used upfront exploratory studies to gain a better understanding of the project. Usually time and money will not permit the developer to do as much of this as they would like. Michael Leabmen (Renaissance Properties) said to mitigate risk they do "as much preplanning as we [Renaissance Properties] can, however you cannot do as much as you like because it is not cost feasible". By retaining knowledgeable consultants and managing them in such a manner that they are getting high quality work in the areas they really need it, developers have been able to get the necessary information to assess the feasibility of a project. The importance of these upfront studies can be

²¹ Forgey, Benjamin, *The Washington Post*, "Graham Gund's Brave New Buildings", January 9, 1988, D4.

illustrated through the World Trade Center project. Even though the project was large in scale (one million square feet) in a secondary location, a developer of the nature of Fidelity Investments felt comfortable about pursuing it because of the detailed upfront studies that Massport had done on the structure and the surrounding area.

Throughout the construction and design phases of adaptive use projects, many of the developers interviewed recognized experience as another risk mitigation measure. Through experience, developers know what kinds of things can go wrong and how to properly account for them in contingencies and design. John Spurr Jr. (A.W. Perry) felt that it was especially important in the schematic design and design development phase to review the plans from an owner's standpoint to flag potential problems. The Gunwyn Co. attempts to mitigate some of their construction risk by making allowances in the construction documents to alert the contractor to potential problems wherever possible and writing some of the unknowns that cannot be covered in the construction documents into the specifications. These hidden costs then become the responsibility of the general contractor. In effect, the developer and the architect are alerting the contractor to all the possible areas of problems prior to the commencement of construction. The contractor will, of course, take this into consideration when submitting their bid.

Once the project is under construction, unforeseen conditions will be uncovered that require changes in the plans. David Clem said it was necessary to be "prepared to be disappointed...be prepared to uncover a crisis instead of a jewel". It was his opinion that the ability to be flexible and make decisions quickly was a key to mitigating risk during construction. For developers with experience in this kind of work, the risk will be less because they will be more familiar with the types of problems that arise and where to look for them.

The regulatory risk can be mitigated through familiarity with the context of the project. With development, in general, becoming more difficult, developers feel that knowledge of the approval process is increasingly important. For Renaissance Properties, the key to their success in the South End has been their familiarity with the neighborhood, and credibility and long term commitment to the area. Their reputation and the fulfillment of their promises has kept community support on their side.

One way in which developers have dealt with the building code risk has been to obtain a preliminary zoning review and building code compliance from

local officials. These are not always possible to obtain, but they have proved to be an effective way to mitigate some of the risk prior to committing to a project. In addition, the developers stress the importance of familiarity with applicable zoning and building codes.

The risks due to the scale of the project can be handled in several different ways. In the World Trade Center project, where one million square feet had to be completed at one time, the developers mitigated this risk by diversifying the uses of the structure. As mentioned above, they realized they could not compete if the project were only office space. By introducing a mix of uses, they diversified the risk. These uses consisted of: office, conference center facilities, high-tech trade mart, food court and restaurants, and exhibition space.

In handling the scale risks with regard to personal liability, David Clem described the best way as "attitude...You just don't think about it." A developer must take only as much risk as they feel comfortable with. If the developer is uncomfortable with the personal liability, then greater efforts must be made to find other sources of capital, or abandon the project.

Chapter Four: Factors Influencing Success

Criteria for Success

Developers can define the success of a project in many different ways. Most would agree that no matter what type of development is done, financial returns are a measurement of success. With adaptive use in particular, there seems to be an additional criteria, namely that of saving and preserving an architecturally significant building by creating a rejuvenated environment with practical, modern day uses. This chapter takes a look at the different aspects of a development with regard to their influence on the success of the development project and/or firm.

Location

No matter what type of project is done, most developers would agree that location can be the single most important factor influencing the success and determining the value of a project. One motivation for doing rehabilitation work is that these old structures occupy prime locations. Sometimes the value of the land, however, can be higher than the revenue producing capabilities of the building, which can lead to the building's demolition. This was the case at 125 Summer St., where virtually all of the existing buildings (except for some facades) were demolished to make room for a 300 foot tower. The project, in a key location in downtown Boston on what is know as the "development spline" which is the desired direction of growth by the planning agencies of Boston, was granted favored height limitations. New construction proved to be not only the highest use of the site, but also the only economically feasible one. In many cases, however, the building is economically viable through adaptive use.

Some key variables mentioned by developers in assessing the desirability of a location include: parking availability, transportation access, plans in progress which might alter site accessibility, and overall level of public service and safety. These aspects of the location affect the market of the building. Projects that have been in less desirable locations, such as the World Trade Center at Commonwealth Pier, have been successful through creative and strategic marketing.

Market

All the developers interviewed indicated market support as a playing a major role in the success of the project. They attempt to gauge the market through a market study in the early stages of the project or their own knowledge of a particular market. Developers get their market information from a variety of sources. Some developers, such as Massport, who are not doing this type of development on a regular basis, have studies done by marketing consultants. Massport had a market study done by Peat Marwick as part of the upfront feasibility study done for the World Trade Center at Commonwealth Pier. Many times market studies are done by a professional marketing firm, or appraisers, for the developer when applying to a lender for financing. Michael Leabmen (Renaissance Properties) said they did market studies when they were entering a new area, and periodically, to keep updated on the condition of the market. Brokers are one of their chief sources of information.

Several developers indicated that the reason their projects were successful was their knowledge of the local market. David Clem (Athenaem Group) does not use market research to determine whether or not he will proceed with a project, because in Cambridge, he has an intuitive knowledge of that market from living and working there for many years.

The condition of the market when the building is ready for occupancy is a critical factor, but one which the developer has little control over. In the case of Old City Hall, the first significant adaptive use office project in downtown Boston, a new product was being introduced into the marketplace, namely the first renovation of an old building in Boston to Class A office space. (The Sears' Crescent was the only other office rehab that had been done downtown prior to Old City Hall, but it was for the use of the tenant/owner.) The project rented up in less than a year after it was completed, in part, due to a favorable market with low office vacancies in the early 1970's.

When projects have lacked what might be considered a prime location, developers have tried to create a market niche to increase the project's marketability. This was the case with the World Trade Center at Commonwealth Pier. Although it did have parking, it was located on Northern Avenue in the Fort Point Channel area southeast of the Central Business District. "The end of the earth" was Paul McGinn's (Massport) description of the location. The concept of marketing the project to those federal/state agencies and businesses that deal in

world trade, along with the commitment of Fidelity Investment (one of the development partners) to occupy 100,000 square feet of office space, proved to be a very successful marketing approach.

Another example of a market niche is One Kendall Square. David Clem (Athenaeum Group), developer of the project, pointed out that "eight out of the ten largest companies in Massachusetts started in Cambridge in spaces like garages". It is these creative, start-up companies that this project has targeted by offering office space with rents 25% lower than comparable new office space. The project has attracted 60% high tech/software companies, 30% biomedical companies, with the remaining 10% as retail operations. Their strategy has been successful with Phase III and IV of their project leased prior to construction. In addition, the majority of the tenants, when they require larger spaces, move up within the complex. The only reasons tenants vacate the project are because their business type or location of market has changed. The majority of their vacancy, Clem admits, is their retail space, because there is little foot traffic in the area and the principals were unfamiliar with this product type.

Credibility can also be an important factor. Although the involvement of reputable institutions or people is not a prerequisite for success, and, in fact, does not always guarantee success, in the case of Commonwealth Pier, it played an important role. Fidelity Investments was named the original developer of the Commonwealth Pier, although they ended up adding two other development partners to their team. The fact that a major downtown financial institution was involved in this project and had committed to occupying 100,000 square feet of office space, in what some considered a less than desirable location, was a tremendous boost to the credibility and marketability of this project. According to Paul McGinn (Massport), it made the financing easier to obtain because an anchor tenant was already committed to taking space in the project. It also allowed the developer to take on a riskier concept (world trade concept). Because they had a high credit tenant who would be occupying space and paying rent from day one, there was some guaranteed cash flow and the developer did not have as great a risk as they would have had the building sat empty while waiting for the concept to gain acceptance and popularity.

Architectural Quality

The unique architecture of the building can prove to be an important factor in the success of the building. It can be crucial to attracting the market to the project. John Spurr, Jr. (A.W. Perry) notes that "if the market is there, you need something to attract the market". A building with "architectural pizzazz" and first class public areas are necessary to compete in the downtown office market.

"Creating something beautiful...high quality...lasting" are the characteristics Richard Backer (Gunwyn Co.) used to describe the key to the success of their projects. The ability to appreciate what is created and relate that to the tenant is another important factor. After successfully completing several adaptive use projects, the name recognition and reputation of the firm for a high level of quality and design influenced the popularity of later projects.

Along these same lines is the quality of the rehabilitation. In order for these projects to be competitive with new construction, the developer must not only take advantage of and be creative with the design, but they must ensure that the quality of the rehabilitation is high. Michael Leabmen (Renaissance Properties) points out that "many shortcuts can be taken in rehab and it is important not to take the ones that will compromise the quality of the job". Lenders also look carefully at this aspect of the project. Liz Gruber of the Bank of Boston emphasized "quality is important so that the project will have equivalent market appeal".

Capitalizing on the architectural qualities of the building is one way in which developers have attempted to use the unique architectural characteristics of the building to attract tenants. Richard Backer (Gunwyn) says that the quality of the public spaces in their buildings are very important. "We try to capitalize on the details of the common areas to communicate a history of the project."

Development Team

Selection of the appropriate architect and contractor is very important because their skills will have a major impact on the project. Maximizing useable space in the structure through creative design will be key to the revenue-

producing capability of the project.²² In the Prince Macaroni Building, the architect wished to add 2-1/2 floors to the top of the building where better views could command higher rents. The existing building structure, it was found, could support this additional load. In addition, the floors in the structure were 12-inches thick. In order to avoid the major expense that drilling through these floors would incur, it was decided to lay piping and ducts on top of the floor slab and cover it with a raised floor. The only penetrations through the floor slab that would then be necessary were for toilet piping.

Experience of the architect, along with the structural engineer and contractor to provide reliable cost estimates, is also an important aspect of the project. An experienced and qualified contractor and architect can be invaluable in controlling the costs of rehabilitation. On the Fish Pier project, Massport fired their original architect because they were incapable of designing and administering a project of this nature (rehabilitation). Massport was further restricted by public bidding laws in the selection of contractors, and was required to take the lowest legitimate bid, which was not necessarily the preferred contractor. Renaissance Properties has their own construction company, and does not have to worry about finding a contractor who understands renovation. However, Michael Leabmen admits that finding subcontractors that can do the job they want is difficult. The only way to find the right subcontractors is through a "learning process" to discover which ones are capable of doing the work.

After the rehabilitation is completed, the quality of the management of the property becomes an important variable. It was the opinion of most of the developers interviewed that operating and maintenance costs for rehabilitated structures were approximately the same or higher than newly constructed buildings. Michael Leabmen (Renaissance Properties) believes that because of the physical details of the building, there were more things to watch over. Items found on rehabilitated buildings such as copper gutters, older building components, and complex roof shapes require constant maintenance. As indicated in the first chapter, energy savings was one of the early motivations of the adaptive use movement. It is unclear how the energy costs for rehabilitated buildings compare with those of new buildings today.

²² Urban Land Institute, *Adaptive Use-Development Economics, Process, and Profiles*, 1978, 19.

Upfront Studies

Because the construction risk is higher on adaptive use projects than new construction due to cost overruns concerning the unknown conditions of the building and the frequency of uncovering those conditions during construction, feasibility studies performed at the early stages of the development process can influence the success of the project. This was a critical factor for the World Trade Center (Commonwealth Pier) project. Massport, prior to seeking a private partner to develop Commonwealth Pier, did an indepth study of the site including engineering, market and traffic reports and environmental review expectations. The result of these studies provided information to the prospective developers about what they could not do. For instance, the study found that the existing buildings represented the maximum capacity the site could hold. If the developer wanted to add to the existing buildings, additional foundations would be required. It also pointed out the roofing over the shed portion of the building which would have to be restructured. This turned out to be a \$5 million item. Of course, it did not uncover all of the problems. Once the project was underway, the developer ran into more asbestos than they had originally thought was present. Overall, the feasibility study provided a basis for common understanding between the two development partners. It provided the prospective developers with an understanding of the opportunities and constraints of the site and enabled Massport to detail their expectations to the developer in such a manner that their objectives were defined in a broad enough framework for a private developer to work within.

The luxury of such knowledge of the property prior to acquisition of a site is not usually the case. This type of work can be costly and time consuming. The front end costs are usually higher in adaptive use projects than new construction because, in addition to the tests required for new construction, there are the additional costs for investigating the soundness of the structure, architectural and historical evaluations, readings from public agencies, and code conformance assessments. The results of these studies will become key considerations to secure the financing of the project.

When performing a feasibility analysis, most of the development firms interviewed felt the most critical aspects of the feasibility assessment was having engineering studies done to evaluate the structure (especially when considering adding floors to the building), determining the efficiency of the proposed use of

the building, and examining construction costs and the market. For a certified historic building, the front end costs can be even higher. This type of project requires more historical evaluation and work with the local historic commission.

Deal Structure

The many creative ways of structuring a development deal that exist today, especially in the acquisition of property, can favorably affect the economics of a project. The incentives offered through tax reform in 1976 and 1981 made many more adaptive use projects economically feasible. Prior to 1976, however, when no tax incentives existed, some developers had to rely on negotiating favorable deals with the local governing bodies to make the projects feasible. This was the case with the Old City Hall. A key factor to this project's success, Roger Webb (Old City Hall Landmark Corp.) points out, was the deal negotiated with the city for acquisition of the property and taxes. This was the first project in which a 99 year ground lease was used. The city had to transfer the property to the BRA first, however, because the city could not lease land for more than five years. The BRA had no such restrictions. This alleviated the upfront acquisition costs that would have been needed for Roger Webb's non-profit corporation to purchase the property.

Often the largest single building expense can be property taxes. A major factor in the feasibility of Old City Hall was that Old City Hall Landmark Corp. negotiated a payment in lieu of taxes that provided for fixed percentage (escalating over time) payments that were tied to the amount of space leased within the building. During the lease up period, a minimal tax payment was made. Although this is similar to Chapter 121A of the Massachusetts General Laws, it differs in that that law applies to owned, not leased, property. This deal structure was the model for Faneuil Hall.

Context

The compatibility of the new use with the existing building and the surrounding environment can be very important. This can be a critical determinant, as the context of the site and the situation of the project are unique and the most difficult to alter if it can be done at all. In addition, the extent to which the old building's style, size, materials and color relates to its neighbors

will be another factor in the success of the adaptive use. This phenomenon can be observed in historic districts. For example, if Louisburg Square in Boston were to have a ten-story yellow brick building replace one of the existing four-story red brick structures, the square would be ruined. In these instances, where no one building is remarkable in and of itself, "the whole is greater than the sum of its parts".²³

Although adaptive use development seems to enjoy more community support than new construction, some developers do not take it for granted. If a developer concentrates their development efforts in one area, they must be familiar with all the activities occurring within the neighborhood of the project. This is the philosophy of Renaissance Properties. Michael Leabmen (Renaissance Properties) emphasizes their long term commitment to the South End community as important to their success. He says they have attained credibility and a good reputation in the community by "understanding and being a part of the South End neighborhood and carrying through on their promises".

Another example of understanding a community's needs is Fischer Hill Estates in Brookline. This project involved the conversion of two existing mansions, a carriage house and a gatehouse into 12 dwelling units along with 26 new units, on property landscaped by Frederick Law Olmstead. Although other developers had put proposals before the city of Brookline for this property, Macomber Development Associates was the only one that succeeded because it addressed the city's desire to retain the four historic structures and to not overload the site (as of right zoning allowed for 38 units maximum). With the community's support behind them, the developer was able to obtain approvals easily.

Some developers interviewed stated that knowledge of the approval process at all levels is important in adaptive use development. With the expanded use of tax incentives and the increasing size and sophistication of projects, the time frame for the review process on state and federal levels has increased and delays are frequent. In addition, an approval from one department does not guarantee the support or approval of other departments.

²³ Special Committee on Historic Preservation - US Conference of Mayors, *With Heritage So Rich*, 1966, 45.

Developer's Personality

Perhaps one of the most important factors is the personality of the development firm, especially the key people. Although it is true of any type of development, the developer must be comfortable with the amount of risk they are taking. This is especially true in adaptive use because of the hidden conditions and surprises that are intrinsic in this type of work. When Fidelity Investments started to develop the Commonwealth Pier as a high-tech mart, they generated a lot of interest in the high-tech community, but could not get any commitments to lease space in the proposed project. Although preleasing is not the norm in rehabilitation projects, Fidelity was reluctant to proceed with the project especially since the scale of the project was so large. At that point, two additional development partners were brought in and reworked the concept. The introduction of these risk taking, entrepreneurial people was a key to the success of the project.

Vision is another important asset. David Clem (Athenaeum Group) describes it as an "unusual feel some people have for old things...a knack". He also believes that the developer needs to be able to recognize the "intrinsic value of the building form" and be able to creatively reuse it. For example, the basement windows in the One Kendall Square project, that from the inside would have been high and small, and if rentable at all, would command only a minimal rent. The developer came up with the idea that, by excavating down to the basement floor level on the outside creating a lower terrace and making the window openings larger, previously undesirable space was turned into space that commands market retail rents. John Spurr, Jr. (A.W. Perry), talked of vision in old buildings as knowing "what people want to see" and being creative with the details.

Because there are so many unknowns in rehabilitation work, flexibility and the ability to make decisions quickly become important. The ability to turn a surprise into an opportunity can save money, time, and enhance the final product. A development firm that can change directions and make decisions quickly when a problem is uncovered has a critical skill necessary to be successful.

Chapter 5: The Past and Future of Adaptive Use

The preceding chapters have looked at adaptive use development at the developer/project level. This chapter will attempt to look at adaptive use development on the city-wide level. How has adaptive use compared with new construction over the years? When and why did adaptive use become a major development type in Boston? What areas in Boston have had the most adaptive use development over time? How have the economic uses changed over time? How have the federal tax credits affected adaptive use development? What types of adaptive use projects were the credits used for? How will the reduction in tax credits impact adaptive use development? How has the public sector involvement impacted adaptive use development? What will its future impact be? How has adaptive use development changed over the past twenty years? What are the prospects for the future of adaptive use? To answer some of these questions, development data assembled by the Boston Redevelopment Authority (BRA) research department was analyzed.²⁴

How has adaptive use compared with new construction over the years? One of the most significant basis of comparison between adaptive use and new construction has been construction costs. In the past, adaptive use development has been associated with lower construction costs. The earliest adaptive use project done in Boston, the Prince Macaroni Building (1967) on the waterfront, was done for \$12 per square foot, a modest cost at that time. Old City Hall, when it was rehabilitated four years later, cost approximately \$22 per square foot. The new office buildings at that time (28 State Street, 1 Boston Place, and 1 Beacon Street) were running approximately \$40 per square foot.

Analysis of the data from a development study done by the Boston Redevelopment Authority indicates that construction costs for adaptive use have been lower than new construction over the past 15 years. (See Exhibits 1 & 2) These amounts are hard construction costs only and do not include any acquisition costs or development "soft" costs.

²⁴ Avault, John and Johnson, Mark, "A Summary and Survey of Development in Boston 1975-1989 Part I - A Summary of Development in Boston", "A Summary and Survey of Development in Boston 1975-1989 Part II - A Chronological Survey of Commercial and Institutional Development in Boston", and "A Summary and Survey of Development in Boston 1975-1989 Part III - A Survey of Residential Development in Boston's Neighborhoods", Boston Redevelopment Authority, 1987.

EXHIBIT 1
OFFICE - HARD CONSTRUCTION COSTS
COST PER NET LEASABLE SQUARE FOOT

	NEW CONSTRUCTION	# OF PROJECTS	ADAPTIVE USE	# OF PROJECTS
75	\$65	5		
76	\$65	2		
77	\$56	2	\$50	1
78			\$40	1
79				
80	\$98	1		
81	\$94	2	\$54	1
82	\$101	1	\$49	2
83			\$54	4
84	\$113	13	\$70	11
85	\$136	6	\$63	6
86	\$89	10	\$70	19
87	\$162	12	\$89	16
88	\$129	15	\$65	4
89	\$95	8	\$75	2
AVERAGE	\$100		\$62	

SOURCE: A Chronological Survey of Commercial and Institutional Development in Boston 1975-1989, Boston Redevelopment Authority, April, 1987.

EXHIBIT 2
RESIDENTIAL - HARD CONSTRUCTION COSTS
COST PER DWELLING UNIT

	NEW CONSTRUCTION	# OF PROJECTS	ADAPTIVE USE	# OF PROJECTS
75	\$51,262	8	\$40,000	1
76	\$38,299	6	\$39,744	2
77	\$51,155	6		
78	\$36,045	9	\$38,991	5
79	\$42,614	5	\$30,090	6
80	\$39,578	4	\$37,811	6
81	\$62,266	11	\$64,787	3
82	\$44,146	4	\$217,021	2
83	\$62,392	7	\$38,706	3
84	\$72,615	3	\$38,188	21
85	\$56,297	20	\$39,760	39
86	\$57,391	60	\$52,040	68
87	\$54,825	41	\$49,070	44
88	\$70,920	8	\$48,834	10
89	\$65,847	12	\$49,141	3

SOURCE: A Survey of Residential Developments in Boston's Neighborhoods 1975-1989, BRA, October, 1986.

Exhibit 1 shows the net leasable square foot construction costs for office space. From this table, it appears that between 1981 and 1986 adaptive use costs were approximately 40%-55% lower than new construction. Prior to that, adaptive use was only 10%-30% lower, and since 1986, it has ranged from 12% to 50%. Some of this apparent inconsistency can be explained by the type of new and adaptive use projects that were completed in certain years. For instance, 1986 shows the narrowest margin between new and adaptive use construction costs. In 1986, only one major new office building project was completed. This was the GSA Federal Building with 630,000 square feet at an average cost of \$115 per square foot. There was only one other project in Boston that was over 100,000 square feet in size. In general, these smaller scale office buildings were not downtown Class A office space, and ranged in the \$50-\$80 per square foot range.

In 1987, however, average new construction prices nearly doubled. This can be linked to Rowes Wharf (\$185 psf), International Place Phase I (\$180 psf), and One Faneuil Hall Square (\$160 psf) which were all completed in that year. These projects were all luxury Class A office space in downtown that were higher in quality than most typical new construction. These three projects accounted for 75% of the new office space in the market that year. Adaptive use also peaked in that year due to the completion of the World Trade Center (\$126 psf), representing over one-third of the adaptive use office space. Construction costs were high for the World Trade Center because it had what was claimed as "the most modern information network". At the same time, the average cost of new construction jumped higher than the 1985 average when the State Archives and Record Center (\$160 psf) and the Paine-Webber Building (\$174 psf) were completed.

As shown, no rule of thumb exists as to what extent adaptive use costs less than new construction. In some cases, it can even be more expensive. The Gunwyn Company said that, in their case, adaptive use is usually more expensive than new construction. For example, their 90 Canal Street project (1986) cost \$90 per square foot. This was more than the average construction cost in 1986. The data in this study combines all kinds of offices together by their construction type. When comparing an adaptive use to a new office tower, adaptive use is clearly less expensive, but when comparing it to an "average" new office building, the cost differential is much less and may be negligible depending on the quality of the rehabilitation.

From Exhibit 2, it appears that new construction is more expensive than adaptive use. It should be pointed out, however, that the data in this study is

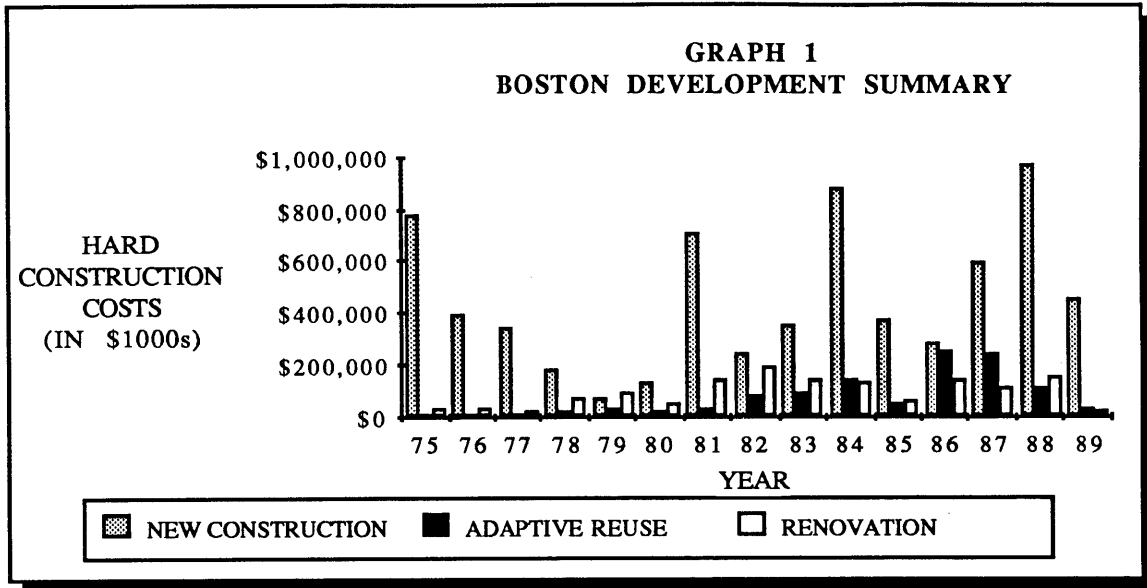
classified by dwelling unit for residential use. Because the actual sizes of the dwelling units are unknown, the results are not as conclusive as square foot costs would be. In some years (1976, 1978, 1981), new construction was actually lower per dwelling unit than adaptive use; however, in those years, the majority of the new residential construction completed was low income and elderly, while most of the adaptive use projects completed were market rate housing. Throughout the 1980's, the gap between new residential construction costs and adaptive use have increased. In new construction, fewer elderly and low income projects were being done, and more new luxury units were being built, such as the Ritz Carlton in 1981 (\$150,943 per dwelling unit), Cabot Estates Phase III in 1983 (\$187,500 per dwelling unit), and Heritage on the Garden in 1988 (\$212,766 per dwelling unit). This increase in new, luxury housing was most likely due to the popularity of urban living in neighborhoods made fashionable by adaptive use and rehabilitation in Back Bay and Beacon Hill. In addition, no new, luxury residential units had been built in the city for a number of years.

Except for 1982, when the Somerset Hotel Condos were completed at a cost of \$259,000 per unit (and was one of only two projects completed in that year), adaptive use has remained 10% to 50% less expensive than new construction throughout the 1980's. As with office construction, it must be remembered that all types of residential units (low income, elderly, market and luxury) are grouped together, and the range of costs for each type of construction can vary depending on which type of projects were done. Many office developers interviewed felt that the construction cost differential had disappeared altogether even though the evidence indicates that construction costs are still lower than new construction. One reason for this disappearing advantage is that in recent years, developers have finished out these spaces like new offices unlike in the earlier rehabs where the structure and systems were left exposed.

Overall, adaptive use development has steadily increased (except for a downturn in 1985) until it peaked in 1986. New construction in that same time period went through three and one-half cycles. (See Graph 1)²⁵ This gradual increase in overall adaptive use development is most likely a result of its slow, but steady acceptance as a legitimate development type in the Boston market. Now that adaptive use has become an accepted development type, will it be as cyclical as new construction, or continue its steady pattern with little variation in highs

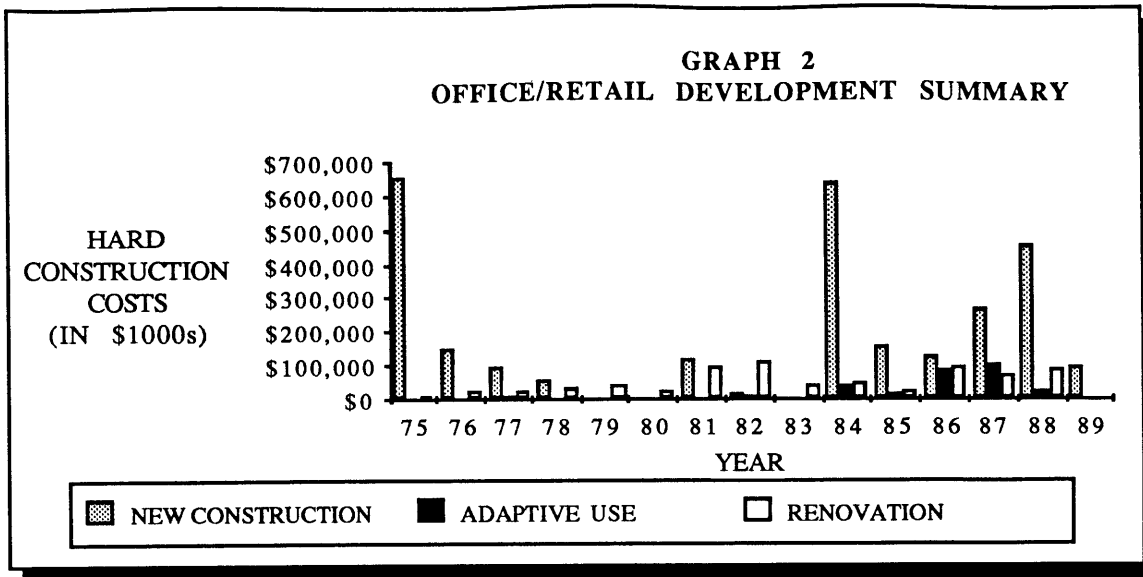
²⁵ Amounts shown in Graphs 1-3 are in constant 1986 dollars.

and lows? Adaptive use will probably not be as cyclical as new construction, because it will never have the volume that new construction has at its peak years. The square footage of the average adaptive use project is much less than that of new construction. Further analysis of the separate market sectors gives a clearer image of what has actually occurred over the past fifteen years.



In the office and retail market, there was no significant adaptive use activity until the mid-1980's. However, the reason for this is not entirely due to lack of acceptance in the marketplace. The entire office market in Boston was inactive from 1978-1983 with the only major new project being the high-rise portion of the One Post Office Square project completed in 1981. (See Graph 2) The minimal adaptive use activity in the office market at this time underscores the uniqueness and riskiness of such developments as Old City Hall (1971) and One Winthrop Square (1976). Although Old City Hall was lucky enough to come on the market in a year in which vacancy rates were low, One Winthrop Square was completed in a climate of rising vacancy rates.

It should also be noted that renovation was the most significant development type in the late 1970's. This was a period of high office vacancies in Boston. Very little activity was occurring in the office market. One possible reason for the popularity of the renovations was that developers were not willing to commit money to large, new projects at this time, so smaller projects that involved less capital, like renovations, were popular. It was most likely the success and



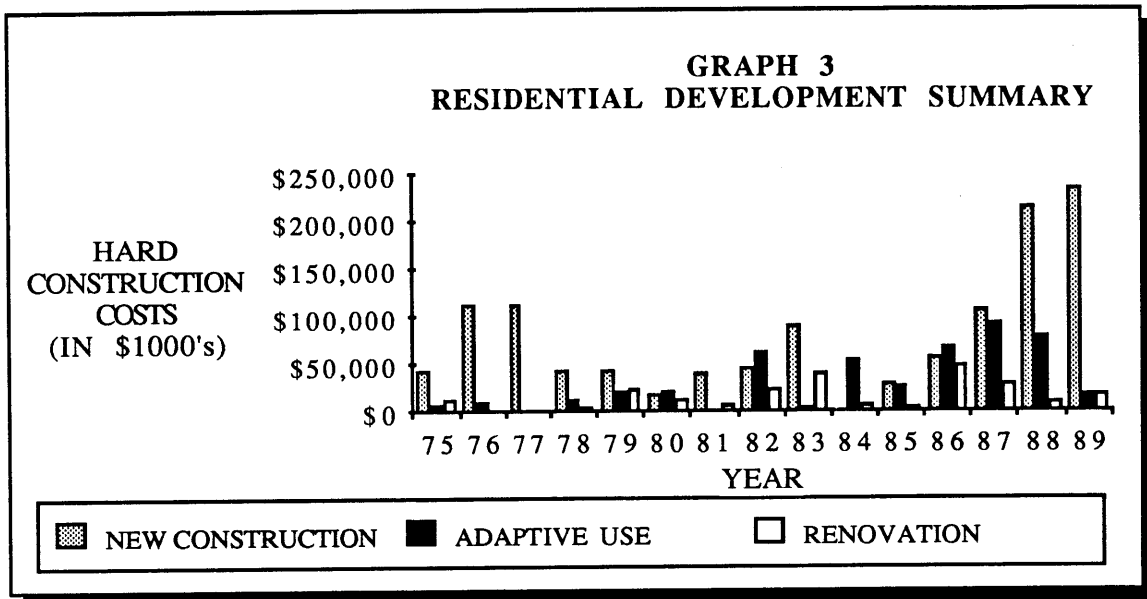
popularity of these early renovations that lead developers to look to other structures that had this type of character which, in turn, increased the number of adaptive use projects.

Many of the renovations done in the early 1980's were similiar in scale and extent of work to the adaptive use projects done in the mid/late 1980's. Renovation includes a wide range of rehabilitations. For example, the Bedford Building was entirely gutted and refitted at a cost of \$83 per square foot. This included all new mechanical and electrical systems, interior finishes and exterior repairs. Other projects, such as the Ames Webster House, have involved an extensive redecorating and refitting by adding outlets, repainting, etc., done at a cost of \$6 per square foot.²⁶ Because there are unclear definitional distinctions and similiarities in adaptive use and renovation, these two types of construction should be looked at together and compared to new construction. This is especially true in the office market, where large scale renovations can cost as much as adaptive use, and although the use of the building remains the same, the tenant market is completely different than that prior to rehabilitation. In six of the last eleven years, adaptive use and renovation combined have exceeded new office

²⁶ Many of the projects classified as renovation in the BRA study have been classified as adaptive use for the purposes of this paper. These projects were grouped in with adaptive use if the scale of the costs and work done was equivalent to that of adaptive use. The definition of adaptive use in this paper was much broader and included those projects whose interiors were significantly gutted and replaced with new systems and finishes.

development. This would seem to indicate that rehabbed office space is marketable in Boston even when new construction is at the bottom of a cycle.

In the residential market, there was more activity from 1978-1983 than in the office and retail market. (See Graph 3) As seen in the graph, the spread between new construction and adaptive use is smaller than in the office market. It is also evident that, even though there was little activity in the office market in the late 1970's, the residential market was still active (even if at the bottom of the cycle) and adaptive use was very much a part of that activity. This reinforces a point made by Mary Hillerich (Bank of Boston) that lending for rehabilitation projects gained its initial acceptance in the residential market. Appendix B, a sampling of adaptive use projects of the past twenty years in Boston, shows that the majority of projects listed in the 1970's were residential in nature.

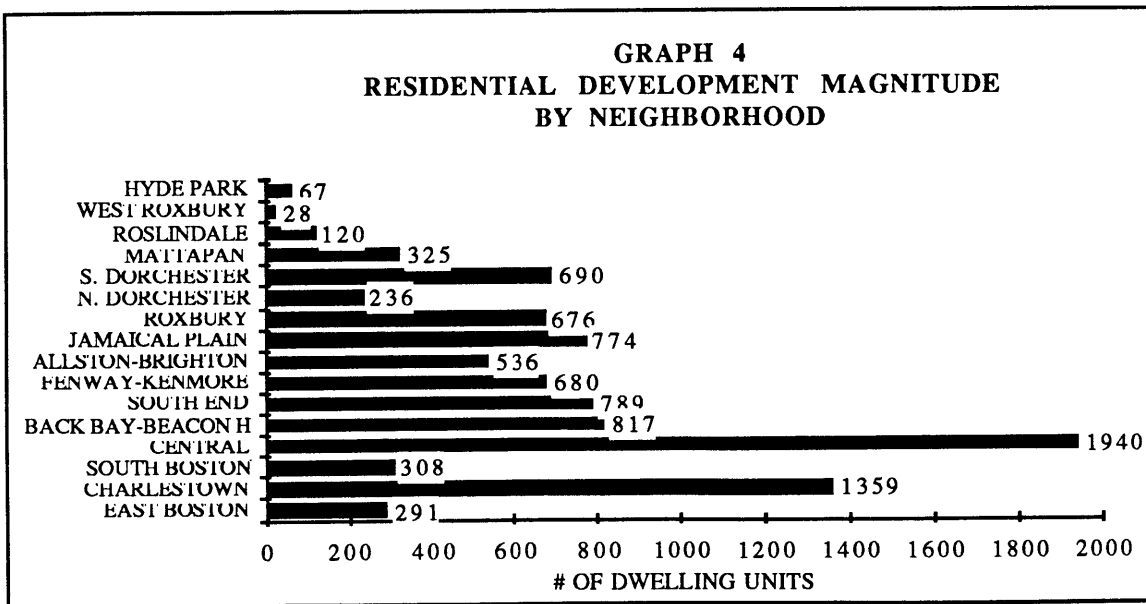


When and why did adaptive use become a major development type in Boston? What areas in Boston have had the most adaptive use development over time? How have the economic uses changed over time? Most of the earliest adaptive use projects in Boston were residential, with a few scattered office buildings. (See Appendix B) These first adaptive use projects for both residential and office use were done in Central Boston, with a majority of the activity on the waterfront. In the early 1970's, the potential of the Boston waterfront was recognized by a few developers and architects. One factor in this area's resurgence was the recognition by city officials of the importance of this area. In addition to the amenity the waterfront provided and the city's public

improvements, its location near downtown employment centers and access to transportation facilities made it a popular location for redevelopment. Projects such as the Prince Building (1968), the Custom House Block (1973), and Lewis Wharf (1974) were a few of those early projects.

Many of these early projects were the result of unique opportunities presented to developers for obsolete structures, in visible locations in danger of being demolished. This was the case with Old City Hall (1971) and the Prince Macaroni Building (1968). Another motivation for these early projects was the need for cheaper space. An example of this was the Chickering Piano Factory (1974) where the developer was able to take advantage of the lower construction costs associated with rehabilitations and the configuration of the existing building (which was shallow in depth and donut shaped) allowing maximum natural sunlight and ventilation to provide affordable work/living space for artists.

The mid-1970's/early 1980's was dominated by residential development. During this time period and the entire fifteen years surveyed, Central Boston has had the most adaptive use residential activity. (See Graph 4 & Exhibit 3) Within Central Boston, most of the activity has occurred in the North End and the waterfront. In addition to the reasons mentioned above, these areas also had an abundance of obsolete warehouse structures suitable for being adapted to apartments, condominiums and offices.



From 1975-1980, the most significant amount of residential activity was occurring in Central Boston and the Back Bay. In the early/mid-1980's, the residential market, in general, seemed to slow, most likely due to higher interest rates. During this time, Fenway-Kenmore neighborhood projects and Charlestown's Constitution Quarters produced the largest number of adaptive use residential dwelling units.

By the mid-1980's, residential adaptive use development had become popular in the South End. Prior to that, small scale renovations were the only activity occurring in this neighborhood. Renaissance Properties recognized the early potential in this neighborhood and was well-positioned to take advantage of the neighborhood's growing popularity. They have concentrated their development in this one area. By the mid/late 1980's adaptive use residential development had spread to all neighborhoods in Boston, with the most activity occurring in the Central Boston, Charlestown, South End, Allston/Brighton, and Jamaica Plain neighborhoods.

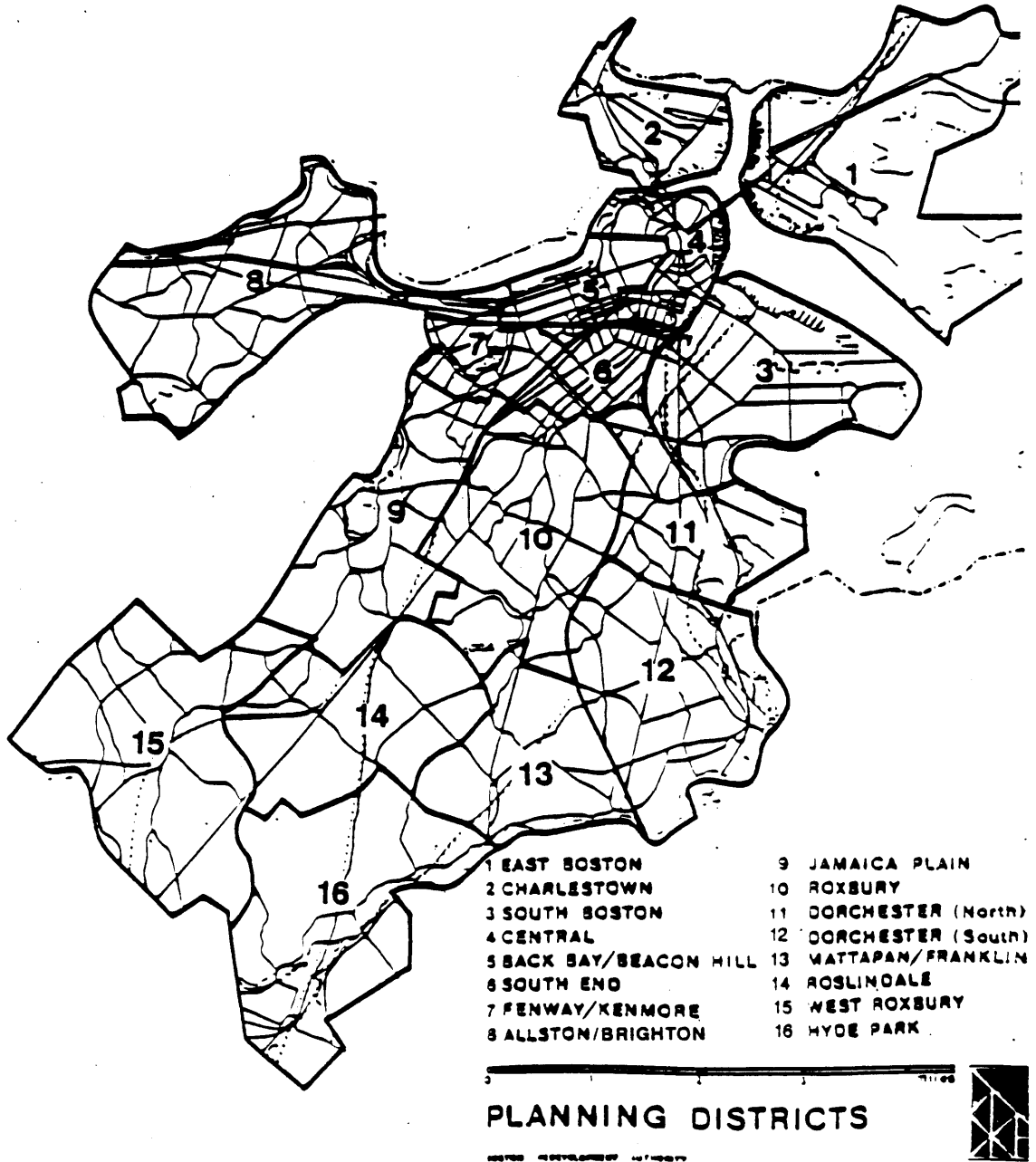
The southwest neighborhoods, however, have had the least residential adaptive use development, with West Roxbury and Hyde Park with only 28 and 67 adaptive use dwelling units respectively over the past fifteen years. One possible reason for the lack of residential development in these areas could be the lack of structures suitable for adaptive use. Another may be that the market for rehabbed living space has not gotten this far yet.

Since 1984, Charlestown has become a prime location for residential adaptive use development. Charlestown has had the second highest number of residential adaptive use developments over the past fifteen years, with 1359 dwelling units. Prior to 1984, the only other adaptive use residential project done in this neighborhood was Constitution Quarters, at the Charlestown Navy Yard (1981), which had 367 dwelling units. By 1987, nearly 60% of all the residential adaptive use dwelling units completed in Charlestown were in the Navy Yard.

With regard to office development, no significant volume of adaptive use projects were done until the mid-1980's. (See Graph 3) Prior to 1982, Central Boston was the only neighborhood where adaptive use office development had occurred. One reason is that Central Boston had a large number of obsolete warehouses and wharf buildings in close proximity to the Financial District. Because of the relative newness of this type of office space and the risks involved, developers chose to stay in a known office market area, especially since in the early 1980's, office vacancy rates in downtown Boston were very low. The success

EXHIBIT 3

Boston Neighborhood Planning Districts



SOURCE: A Summary and Survey of Development in Boston 1975-1989
Boston Redevelopment Authority

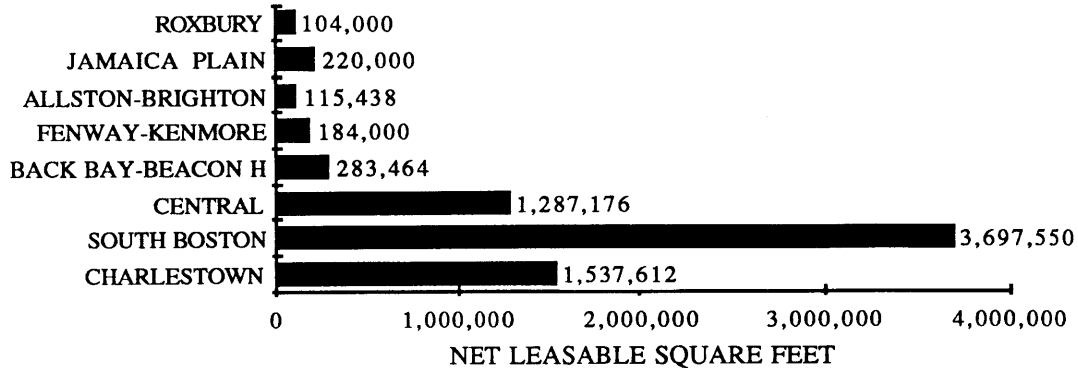
and acceptance of the earlier reuse projects gave rise to new projects. An example of this is 20 Winthrop Square, an underutilized building in the Financial District owned by A.W. Perry. Because rehabbed office space had become marketable, and their neighbors at 1 & 10 Winthrop Square (both rehabbed office buildings) had been successful, A.W. Perry decided to convert 20 Winthrop Square to Class A office space.

By the mid-1980's, adaptive use office development had spread to those areas closest to Central Boston, namely South Boston and Charlestown. In addition to their proximity to the Central Business District, these areas also had an abundance of obsolete warehouses and wharf buildings. Adaptive use accounted for 81% of the total office development that occurred in South Boston in 1984. Fish Pier (1985) and Commonwealth Pier (1986), also in South Boston, were also part of the recognition of the potential of this area. The growth of the Fort Point Channel area was also fueled by the proposed Fan Pier project, a large scale mixed use development.

In 1986, Charlestown saw a significant increase in adaptive use office development. The Charlestown Navy Yard, with its unique history, structures, and prime waterfront location, was an impetus for much of the office and residential development in Charlestown. 34% of the total office development in Charlestown in 1986 occurred at the Navy Yard, with 100% of the office development in 1987 located there. Adaptive use has accounted for 89% of the total office development in South Boston and 81% of the total office development in Charlestown.

Office development continues to spread. Today half of the sixteen neighborhoods closest to Central Boston have adaptive use office developments. (See Graph 5 & Exhibit 3) This spread is, in part, due to the high acquisition costs associated with the more popular neighborhoods. As adaptive use and renovation became more popular in Central Boston, shell costs rose prompting developers to look further out for cheaper shells in "undiscovered", peripheral areas. This pattern of growth radiated from Central Boston, with the amount of development declining as the distance from Central Boston increased.

**GRAPH 5
OFFICE DEVELOPMENT MAGNITUDES
FOR BOSTON NEIGHBORHOODS**

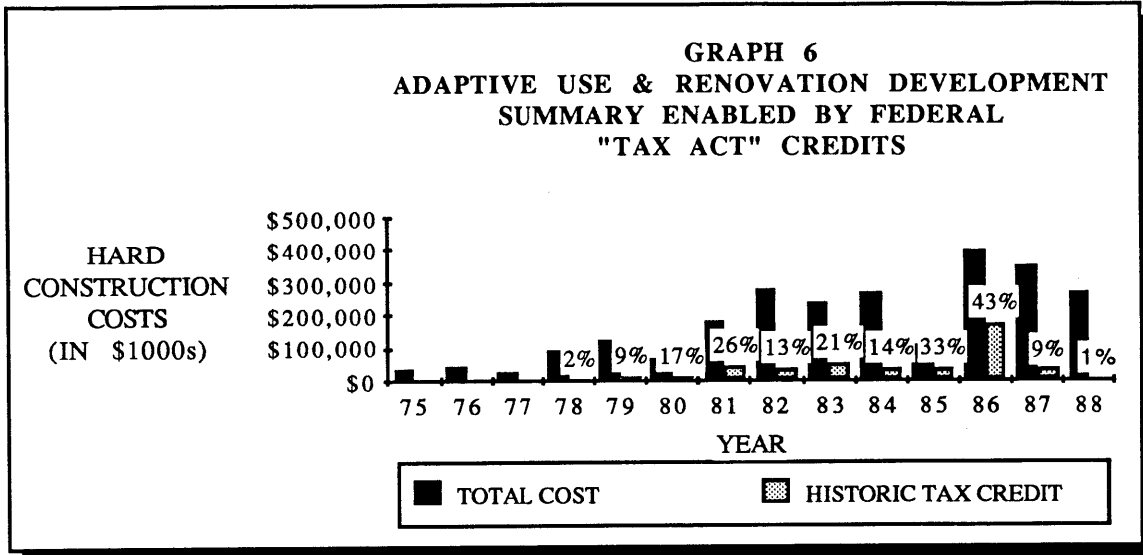


Adaptive use office development in Boston has tended to be more area based most likely due to the existing market there. The projects tended to be in the known office market areas spreading slowly away from there only as acquisition costs rose, for instance the spread from the financial district to the Leather District, Fort Point Channel and the North Station area. Some of the office developers interviewed, however, seemed to be not so much restricted to one area of development. Firms such as Gunwyn Co. and Raymond Cattle have looked more for areas of opportunity than restricting themselves to one area of development. A.W. Perry and the Athenaeum Group are more concentrated in particular markets (Cambridge and downtown Boston, respectively). Residential development started as an area based phenomenon in Central Boston and Back Bay, but through its acceptance, now occurs in all areas of the city. Residential developers such as Renaissance Properties, on the other hand, seem to be more likely to concentrate on a certain area for development as opposed to spreading out to multiple areas.

How have the federal tax credits affected adaptive use development? Since 1976, 200 projects in Boston have received federal tax credits, 52 of which were adaptive use projects. In total, \$442 million of development has involved federal tax credits.²⁷ Over the past fifteen years, 18% of the total development projects completed have utilized tax credits. (See Graph 6) These figures include both

²⁷ All historic tax credit data in the following paragraphs comes from a BRA study done by John Avault and Jane Van Buren entitled *Economic and Fiscal Impacts of Historic Preservation Development in Boston*, May, 1985.

adaptive use and renovation. Less than 18% have depended on tax credits as the only economically feasible means for development. Many of the projects would have been completed without the tax incentives. Most of the developers interviewed for this paper indicated that tax credits were not a determining factor in their decision to proceed with adaptive use projects in the past. Although they have made the project economics more attractive in some cases, most developers said they would have proceeded with their projects regardless of the tax credits.



This does not indicate, however, that the tax credits have not played an important role in adaptive use and renovation development. Graph 1 indicates three peaks in adaptive use development. The first occurred two years after the Tax Reform Act of 1976, the second, two years after the Economic Recovery Act of 1981, with the third and highest peak in 1986, the year before the tax incentives were reduced. In 1986, 43% of all adaptive use and renovation development completed utilized the federal tax credits. This high percentage of historic tax credit development included developers rushing to take advantage of the higher tax credits by having their buildings in service by the end of 1986. It is interesting to consider how this graph might have looked if the tax credits had not been reduced. No doubt 1986 would have seen less tax credit development, and the 1987 and 1988 totals of projects using historic credits would be higher. From this data, it can be seen that the tax credits have encouraged adaptive use development and helped make it a popular and accepted building type.

What types of projects were the credits used for? The largest use of tax credits in terms of total dollars of development was office use with 47%.

Residential was second with 35%.²⁸ The residential percentage does not reflect the overall importance of adaptive use development with regard to the residential market, due to the fact that many of the projects completed were condominiums and could not utilize the tax credits. When looking at the magnitudes of space by use, the federal tax credits were not utilized by uses such as hospital, medical and educational adaptive use projects.²⁹ (See Exhibit 4) Possible reasons may include that these types of projects are generally owner occupied, and the owner cannot utilize the tax credits. Another reason is that the costs associated with the tax credits (conformance with historic restoration guidelines) may outweigh the tax benefits.

EXHIBIT 4
PERCENTAGE OF HISTORIC ADAPTIVE USE
TO TOTAL ADAPTIVE USE

	HISTORIC	TOTAL	%
OFFICE (SF)	1,193,681	3,799,620	31%
RETAIL(SF)	74,482	325,541	23%
MEDICAL (SF)		375,663	0%
EDUCATIONAL (SF)		684,062	0%
REC. & CULT. (SF)	17,000	48,500	35%
PARK & TRANS. (CARS)	1,696	2,395	71%
INDUSTRIAL (SF)		1,874,320	0%
HOTEL (ROOMS)		330	0%
EXHIBITION (SF)	350,000	1,095,000	32%
RESIDENTIAL (DU)	1,679	9,636	17%

How will the reduction in tax credits impact adaptive use development? Although the tax credits had been reduced, in 1987 and 1988 the amount of adaptive use development was still higher than in any other year except 1986. (See Graphs 1 & 6) As mentioned above, an average of 18% of the total adaptive use and renovation projects have taken advantage of the tax credits yearly over the past fifteen years, but in 1987 and 1988 only 9% and 1% of the total projects respectively utilized the tax credits. Although part of this decline is due to the

²⁸ Avault, John and Van Buren, Jane, *Economic and Fiscal Impacts of Historic Preservation Development in Boston*, Boston Redevelopment Authority, May 1985, 4.

²⁹ The information in the *Economic and Fiscal Impacts of Historic Preservation Development in Boston* indicated that no adaptive use hotel development had utilized tax credits. However, research has indicated that the Hotel Meridien, the former Federal Reserve building completed in 1981, did utilize the tax credits.

fact that many projects do not require the tax credits for feasibility, another reason may be that the present tax benefits do not offset the extra costs associated with historic rehabilitation guidelines. Several developers indicated that, in the past, they have refused historic tax credits because the cost associated with conformance to the guidelines exceeded the tax benefits, and made the project infeasible.

All of the developers interviewed said the tax credits were not the primary reason they pursued adaptive use projects and indicated that they would continue to do rehabilitations in the future. David Clem (The Atheneum Group) observed that with the tax credits, developers "could make a lot of mistakes and still make money on the project". In essence, the federal government was providing a "safety net". He believes that, in general, the good developers will survive without the higher tax benefits. From this evidence, it seems clear that adaptive use will remain a viable development type, although there will probably not be as many projects as there were in 1986. Rehabilitation developments in the future will need to be economically feasible in their own right, without the tax benefits.

How has the public sector involvement impacted adaptive use development? The public sector involvement in certain areas of the adaptive use market has been significant. From the late 1960's, when public improvements along the Boston waterfront (totaling \$50 million)³⁰ played an important role in that area's rejuvenation, to the present, where the BRA has overseen the planning and redevelopment of the Charlestown Navy Yard, public sector involvement has been significant.

In Chapter One, a brief description was given of several major public agencies in Boston involved in various aspects of development. This section looks at the involvement of two agencies and one city policy (tax programs) to determine the impact these might have had on adaptive use development. The Massachusetts Housing Finance Agency (MHFA) and Economic Development and Industrial Corporation (EDIC) have assisted those uses that might not otherwise have been economically feasible for adaptive use, namely rental housing and industrial development.

EDIC has assisted industrial development in three different ways: providing a site finder service for industrial properties; providing space at below

³⁰ Urban Land Institute, *Adaptive Use-Development Economics, Process and Profiles*, 1978, 14.

market rents for blue collar companies in three industrial parks that the EDIC owns; and administering financial resources that include below market loans. Although adaptive use accounts for only 18% of the total industrial development in Boston, the EDIC has provided assistance for 63% of that total. Renovation has accounted for over 50% of the total industrial development.³¹ Renovation can include updating an existing factory for the same company, to refitting an old factory for a new company. 80% of the renovation of industrial projects has included assistance from EDIC. Clearly EDIC has been a significant force in industrial development overall, but it has been especially helpful to adaptive use and renovation. Nonetheless, the EDIC's activity in industrial development seems to have dropped off in recent years.³²

MHFA's impact on the rental rehab housing market can be clearly seen by the amount of rehabilitation they have financed. (See Exhibit 5) 70% of the

EXHIBIT 5
MHFA INVOLVEMENT
REHABILITATION & ADAPTIVE USE
(By Year Permanent Loan was Closed)

<u>YEAR</u>	<u>LOANS</u>	<u>UNITS</u>	<u>AMOUNT</u>
1970	2	47	\$530,791
1971	9	712	\$12,673,824
1972	7	461	\$9,173,791
1973	5	192	\$4,144,404
1974	2	165	\$3,502,085
1975	7	718	\$21,620,047
1976	2	44	\$1,370,700
1977			
1978	2	81	\$3,434,542
1979	2	315	\$11,786,112
1980	1	100	\$3,843,712
1981			
1982	4	427	\$21,439,082
1983			
1984	1	31	\$1,703,696
1985	2	142	\$5,197,665
1986	3	1417	\$128,388,145
1987	6	606	\$50,788,172
TOTAL	55	5458	\$279,596,768

SOURCE: MHFA Housing List, Sept. 1987

³¹ Percentage data source: *A Summary and Survey of Development in Boston 1975-1989 Parts I & II*, Boston Redevelopment Authority, 1987.

³² Avault, John and Johnson, Mark, *A Chronological Survey of Commercial and Institutional Development in Boston 1975-1989*, BRA, 1987.

rental units they have permanently financed in Boston have been renovation, adaptive use, or a combination of rehabilitation/new construction projects. This represents over one-third of all the adaptive use and renovation dwelling units done in Boston (total includes condominiums also).³³ In the 1970's when adaptive use was an unknown quantity that most lenders considered too risky, MHFA provided an important financial resource to adaptive use development. They financed projects such as the Prince Building and the Chickering Piano Factory. This data illustrates the major role the MHFA has played in promoting adaptive use development for rental housing. Their involvement in this sector continues to be strong.

One way the city has been able to assist developers undertaking adaptive use projects through various tax programs. Since property taxes can be a major expense in an operating budget, and one that is impossible to predict with certainty in the future life of the project, the local government has several assistance programs that can reduce operating costs. These include: Chapter 121A of the Massachusetts General Laws (special property tax provisions), payments in lieu of taxes (PILOT), tax exempt status, leasing of property, exempt agreement without payment, or some combination of the above. The following table shows the number of adaptive use projects that have utilized the various tax instruments available. (See Exhibit 6) The only tax incentives used for housing projects were the 121A provisions. Roger Webb (Old City Hall Landmark Corporation) credits the land lease and PILOT agreements negotiated with the city as the key to that project's success.

From this data, it can be seen that public agencies in Boston have promoted development in general, and adaptive use in particular, in certain sectors of the market. Their involvement assisted adaptive use development where it might not have been economically feasible otherwise, even with historic tax credits. The involvement of the public sector to initiate redevelopment has been very important in large scale projects and marginal areas such as the Charlestown Navy Yard (BRA) and Bulfinch Square (Cambridge Redevelopment Authority). The development role of such quasi-public agencies as Massport with the Commonwealth Pier, may be an indication of the future of public sector involvement. By acting as a developer instead of the more typical regulatory

³³ Source of figures: *MHFA Housing List*, MHFA, 1987, and *A Summary and Survey of Development in Boston 1975-1989 Part I*, BRA, 1987.

body, they have been able to fulfill their public mandate more effectively. This is not appropriate in all cases, but the Fish Pier project is a good example of this. By acting as a developer, they were able to rehabilitate this facility making it more profitable while assisting the troubled fishing industry.

EXHIBIT 6
TAX STATUS TABLE

<u>YEAR</u>	<u>121A</u>	<u>Exempt</u>	<u>PILOT</u>	<u>Agree</u>	<u>Lease</u>	<u>Mixed</u>	<u>Tax</u>
1975							1
1976	1						1
1977			1				
1978	2						3
1979	3			1			3
1980	4						2
1981							4
1982	3						6
1983	1	2	1				12
1984	6		2				30
1985		1					52
1986			1			7	84
1987		5				5	61
1988	1	3	1			2	15
1989							5
1990	1						4
TOTAL	22	11	6	1	0	14	283

121A- Urban Renewal Program Tax Agreement
 EXEMPT- Tax Exempt
 PILOT- Payment in Lieu of Taxes
 AGREE- Exempt Property Agreement without Payment
 LEASE- Lease of City or BRA property. Often land is leased & building taxed.
 MIXED- Combination of Above
 TAX- Taxable

SOURCE: A Summary and Survey of Development in Boston 1975-1989, Parts II & III, Boston Redevelopment Authority, April, 1987.

If acquisition costs in prime locations become so high that redevelopment stops in these locations, the public sector may need to take steps and become further involved. If it is not economic to rehab these structures, then is the alternative to tear them down and build new, larger buildings? This may become a question that the public sector needs to address. Several vehicles exist to promote a pro-redevelopment policy such as zoning restrictions and transfer development rights. The path the public agencies will take is unclear.

With the increasing difficulty in the Boston area of moving new construction projects quickly through the regulatory process, adaptive use may be able to gain an advantage. Because the existing structure is already in place, the impacts of adaptive use development are less severe and can, therefore, pass more quickly through the approval process than new construction. The only approval processes that may take longer for adaptive use could be historic review (which should now be faster with the decreasing number of projects utilizing tax credits) and building code reviews.

An idea currently being promoted by the mayor of Boston may turn out to be a constraint on future adaptive use development. This law would protect some of the currently zoned industrial areas of Boston and reserve them for industrial use only. This would preclude the conversion or replacement of those existing structures to new uses.

How has adaptive use development changed over the past twenty years? Adaptive use development has grown in popularity and represents a major development component of the 1980's. Adaptive use and renovation have accounted for 30% of the total development done in the 1980's in Boston. Throughout the past twenty years, though, adaptive use development has changed in response to the market demands and the economic environment.

One such change that has occurred is the physical quality of the rehabilitated space. In early adaptive use and renovation projects, the "look" of the space was sandblasted brick and exposed pipes and ducts. In recent years, the objective has been to create space that is new in appearance (lay-in ceilings, plaster or drywall walls, etc.). In today's market, recycled space is competing with the lower floors of new office towers. James Hooper, vice president of Spaulding & Slye felt that:

What you've got is tower space in a historic envelope. They compete by providing services while maintaining charm.³⁴

Michael Leabmen (Renaissance Properties) explains "the marketability of the project will depend on how good the job is compared to new construction". As the market gets more competitive, developers have turned to quality to give them an edge. Developer Robert Beal explained:

³⁴ *Boston Business Journal*, Sept. 16-22, 1985, 22B.

The buildings that will lease are those that have special features to them, are well managed and well done, inside and out.³⁵

One reason for the improved quality of rehabilitations is the availability of architects, contractors and craftsmen who are capable of this type of work. Over the years, these trades have developed the necessary skills and understanding of this building type. When Roger Webb (Old City Hall Landmark Corporation) was looking for an architect for Old City Hall, he encountered some difficulties. There were few architects with experience in rehab in 1970. The major reason Webb chose Tim Anderson of Anderson Notter was that he had successfully completed the Prince Building one year earlier. Webb said at that time, rehab projects were considered by architects to be "low status, second line work". Selection of the contractor was not as difficult, because the architect was able to control and communicate the design to the contractor. With the increased popularity of adaptive use in the 1980's, it has become easier to find architects and contractors who are familiar with, and capable of, doing this type of work.

Another aspect of the project economics that has changed over the years is the acquisition cost of the property. Tim Klapp, a broker with Coldwell Banker, indicated that the key variable in project economics is the acquisition cost of the land and building. Older buildings were plentiful and relatively inexpensive ten years ago (approximately \$35 psf in the early 1980's). As adaptive use development has proven marketable and successful in an area, the prices of the shells have risen. In order to be competitive in the marketplace, a rehab cannot have lower quality finishes or charge higher rents than its competition. With the prices of the shells approaching that of undeveloped land, developers are finding fewer projects in these areas where the economics will work. Most developers see this as a characteristic of future adaptive use development. As shell prices rise, developers will need to look for opportunities in other areas, as they have done in the case of Charlestown, South Boston and the North Station area within Central Boston.

Lenders attitudes toward adaptive use have changed over the years, as well. Ten years ago, adaptive use was not an established development type. Unless it had attracted a permanent lender, a construction lender would not look at the

35 *Ibid.*, 22B.

project. Part of the change in attitudes is due to the changes in lending practices. Prior to 1980, according to Mary Hillerich (Bank of Boston), a permanent lender would make an upfront commitment on the permanent financing of the project and the construction lender would fund the construction loan for the amount of the takeout. Upon completion of the building, the permanent lender would fund part of the permanent loan until the building leased up. A construction lender would not approve a loan if the developer did not have a permanent lender for the project. When interest rates rose in the early 1980's, the permanent lenders lost a great deal of money because they had committed funds at lower than current interest rates.

Today, there is seldom a development with a permanent commitment prior to construction. For this reason, the construction lenders carefully scrutinize projects to ensure that it covers the market risk to which they are now exposed. Their opinion that the market risk is one of the greatest risks this type of development has reinforces the comments made by the developers in an earlier chapter. Construction lenders will require the developer to submit a market study and appraisal prior to approval. These requirements are the same for new and rehab projects. The only aspect lenders scrutinize more carefully today for rehabilitations is the construction cost contingencies. They, like the developers, recognize that there are likely to be more cost overruns associated with rehab and usually require a higher (10%) contingency for rehab projects. This number is more conservative than the average contingency developers mentioned for adaptive use (3-5%) and would cover overruns that some developers would consider high, such as those mentioned earlier in the 420 Boylston project. They also analyze the office projects more carefully, because in the downtown market, according to Mary Hillerich, rehabbed office space, unlike new office buildings, cannot be considered Class A office space. Class A usually has a lower vacancy rate associated with it (2% or 3%) while Class A- or B, how lenders classify rehabs, will have a higher vacancy rate. Because of this classification, and the fact that the present market is in a downturn, lenders will generally look for more preleasing with these types of projects. As mentioned before, preleasing, especially for office, is seldom done in rehab. Adaptive use development could, therefore, face increasing difficulties during the slower phases of the real estate cycle. With residential development, Hillerich said, there has been less of a difference in the lender's view between new and rehabbed space. This is especially true in urban areas where there is an abundance of existing

structures. This view by lender's was probably one of the reasons that adaptive use development gained its earliest popularity in the residential market. (See Graph 3)

Developers interviewed were mixed on the ease of finding financing for rehab projects today. Richard Bland (Raymond Cattle Company) said that even with the company's reputation and success, they find it just as hard today to find financing as they did when they started doing these types of projects 20 years ago. In the case of A.W. Perry, financing has not been an issue, because they have either financed the construction costs themselves (20 Winthrop Square) or used their ownership in the building as security (420 Boylston). David Clem (Athenaeum Group), whose upcoming phases of One Kendall Square are already preleased, also said that finding financing, now that the project has proven itself, is easier to obtain. He made the observation that the younger people in the lending institutions are the ones that get excited about rehabilitation projects. He felt this was because they had grown up with this type of development and were more comfortable with rehabs than were older generations. Most developers interviewed felt that obtaining financing had gotten easier over the years as their reputation and experience in doing these projects grew.

What are the prospects for the future of adaptive use development? In Central Boston, the current area of high activity is the North Station/Bulfinch Triangle area. This area has become popular because of its large percentage of underutilized structures and its proximity to Government Center, the Massachusetts General Hospital Complex, and the proposed development at the Boston Garden/North Station. Another area of potential future development in Boston is the "Combat Zone", which was so named and created in 1974 to limit the area of "adult entertainment" activities. This area covers four blocks in Central Boston, and occupies a key location with the theatre district to its west, Chinatown to its east, Tufts Medical Center to its south, and the downtown retail district to its north. In addition, it is the link between the Central Business District and the Back Bay. Adaptive use could become an important component of the overall redevelopment of this area. Some developers feel that some new construction projects will have to be done first, though, before adaptive use would be a good investment in this area.

In South Boston, the Fort Point Channel still remains a prime area for future adaptive use development. Even though it has already seen an increase over the past five years, there are still many warehouse structures available for

adaptive use. Development there has slowed recently with the shelving of the Fan Pier project and the upcoming barrier that the burying of the Central Artery and the Third Harbor Tunnel will create. The resolution and completion of these projects will put the Fort Point Channel area and South Boston in a prime location for all types of development.

With the growth in the greater Boston area in general and the high density of development in Central Boston and its surrounding neighborhoods, the radiating pattern of growth should continue. As far as adaptive use is concerned, areas such as Chelsea, Everett and East Boston (especially after the third harbor tunnel relieves some of the traffic in the Sumner and Callahan Tunnels) should become areas of consideration. They possess a number of old, industrial buildings that have conversion potential. This is a virtually untapped resource, but it may take some initial public sector involvement to attract development to these areas.

As developers undertake more adaptive use projects, they gain the necessary experience which allows them to estimate construction costs more accurately, and better anticipate surprises that may occur during construction. This trend should continue to grow in the future. It was the opinion of some of the developers interviewed that adaptive use construction costs today were the same as new construction costs. John Spurr, Jr. (A.W. Perry) indicated that the construction costs on 420 Boylston were about \$100 per square foot. The savings, he said, were in the soft costs, because the time of construction was shorter than new construction, and the carrying costs were lower. Another disappearing advantage of adaptive use is the low acquisition costs of the shell structures. The tax credits, although not as high as they once were, are still a positive advantage for certain adaptive use projects in the future.

With these as the future characteristics of adaptive use development, speculations can be made as to what the nature of future adaptive use development might be. With the decreased tax benefits, narrowed construction cost gap between new and adaptive use construction, and lower rents these projects must have in order to compete, acquisition costs will need to decrease for adaptive use development to continue to be feasible in those areas. On the other hand, if acquisition costs do not decrease, adaptive use may not be able to compete with new construction in prime locations, and developers will need to seek alternative locations where they can compete in the market.

With so much adaptive use development having occurred already in Boston and Cambridge, developers are having an increasingly difficult time finding

structures suitable for adaptive use at the right price. David Clem (The Athenaeum Group) said that Cambridge is running out of structures that are suitable for rehab. He indicated that after the One Kendall Square project, the firm was not certain as to what they would do next. Is it possible that Boston could run out of structures suitable to rehab? In 1985, Richard Lundgren, a senior vice president with Hunneman and Co. said:

I can see a time in 1987 when virtually every old mill building within three-quarters of a mile of State and Congress streets will be rehabbed and filled. Once these areas are all done- then what will we do?³⁶

The uncertainty expressed by some of the developers interviewed for their future plans is partially due to the present downturn in the real estate cycle. In the past downturns in the market, rehab activity seemed to increase. (See Graph 1) Adaptive use developers were unsure at the present time of their future strategy. Because the areas they had been working in had experienced a large amount of adaptive use development, potential adaptive use sites were getting scarce and redevelopment becoming limited. Some of these developers, such as Renaissance Properties and The Athenaeum Group were pioneers in their areas. Developers like this may look to "undiscovered", more marginal areas to start this process again. The Gunwyn Company looks for projects with a high design potential and many they have found have been in marginal underdeveloped areas much like Bulfinch Square in Cambridge was when they decided to do that project. Their motivation for doing these projects, however, is different from the typical developer.

Many changes have occurred already in the short life of adaptive use development. Some of the advantages that created its initial excitement for developers (cheap buildings in choice locations and lower construction costs) have disappeared. It is hoped that the information this study presented provides a clearer understanding of adaptive use development in Boston. With this understanding, however, comes more questions, especially with regard to the nature of adaptive use development in the next twenty years. How will the disappearing economic advantages of adaptive use, not only the tax credits but construction costs, acquisition costs, etc., affect the number of adaptive use

³⁶ *Boston Business Journal*, Sept. 16, 1985, 24B.

projects done in the future? If adaptive use development does decline, will the local or federal government take steps to more actively promote this type of development? What structures will be popular for future adaptive use? What neighborhoods will be popular for adaptive use? How soon will the early adaptive use projects need to be renovated again?

APPENDIX A: Firm Profiles

OLD CITY HALL LANDMARK CORPORATION

Location: 45 School St. (Old City Hall)
Boston, MA

Principal(s): Roger Webb

Size: 4

In-house services: Property management

Adaptive use projects: Old City Hall

Other products: Converting mansion into condos in New Bedford under subsidiary corporation

Firm History: Old City Hall Landmark Corporation is a nonprofit subsidiary of Architectural Heritage Foundation (also founded by Roger Webb) specifically formed to recycle the Old City Hall. During the 1960's, Roger Webb worked as a consultant advising entities, such as public agencies, on how to go about preserving historic buildings. In 1966, the BRA retained him to do a market plan and economic feasibility study of Faneuil Hall. In the midst of performing that study, then Mayor Kevin White asked Webb to study the feasibility of reusing Old City Hall as the New City Hall was nearing completion. He had assembled a blue ribbon panel to advise him on the structures's disposition and they had determined that renovation of Old City Hall would be cost prohibitive. Webb, after determining that the basis the panel had made their determination was incomplete, began a study and determined the building could be renovated for half the cost the panel had said. The Mayor decided the project should be the subject of a nationwide competition. Although Webb felt that he should have been given the project, he formed the Old City Hall Landmark Corp. and entered the competition. Only two other groups entered the competition, and Webb eventually won it in November of 1969. The project had break even or negative cash flows for the first ten years because the rents were held constant over that period of time while operating expenses and taxes increased. Today the project is generating a significant positive cash flow, and Webb continues to utilize this money to further the cause of preservation.

MASSPORT

Location: Transportation Building
10 Park Plaza
Boston, MA

In-house services: Development, Property Management

Adaptive Use Projects: World Trade Center - Commonwealth Pier; Fish Pier

Firm History: Massport is a quasi-public state agency with revenue bond authority whose responsibility is to run the port of Boston. Their mandate is to be an economic development entity. They got into the development business about ten years ago when they found they had quite a bit of property that was obsolete or underutilized due to the changes in the shipping and transportation industry. Massport had a legislative responsibility to keep those properties operating. They could not sell them or close them down. The board of directors looked at these properties, Commonwealth Pier, Fish Pier, and Hoosac Pier, from a real estate development perspective as opposed to a transportation one. They started looking at the properties and their uses. If the present use did not need to be perpetuated, they determined what kind of use would be appropriate for the site. The Fish Pier's present use was still valid and Massport wanted to maintain a long term commitment to the fragile fishing industry. Commonwealth Pier, on the other hand, had been a break bulk cargo pier. This type of shipping had been replaced by the more efficient container method, which was not a feasible use at Commonwealth Pier. Because they could make the Commonwealth site free and clear with regard to a vacant site, a clear, new concept, and economic viability, they sought a private development partner to do the project and ground leased the site to them. In the case of Fish Pier, however, the fundamental concept was to renovate the structure for the fishing industry. The numbers for this project would not work for private development because the rents had to be below market to help stabilize the industry, so Massport became the developer. Fish Pier has proven a success for Massport even though there have been no great returns on capital by private development standards. This is because they had to keep it open even when it was losing \$1 million per year. Now it is doing better than breakeven. The World Trade Center-Commonwealth Pier project was successful, too. Massport will continue to acquire and assess existing property and plan to use both development models again in the future where they are appropriate.

THE ATHENAEUM GROUP

Location: 215 First Street
Cambridge, MA

Size: 14

Principal(s): David E. Clem
Robert A. Jones
K. George Najarian

In-house services: Finance, Property Management, Construction Management
Affiliated Brokerage and Architectural Firms

Adaptive Use Projects: One Kendall Square

Other Products: New construction (commercial)

Firm History: The Athenaeum Group was formed in 1980. Prior to that, Bob Jones and George Najarian had worked together for ten years in the real estate development field. David Clem had been working as a nonprofit housing developer in Cambridge since 1971. They formed the partnership with the specific intent of doing the One Kendall Square project. They were able to acquire this property, the old Woven Hose Factory, at a very low price. It would have been more expensive to tear it down than to purchase the property. The project will span five phases, three of which are already completed, and should be completed in two to three years. This project has been successful in its targeting of the start up market. Experience gained in this project has included: tenant mix, knowledge of the biomedical market, use of a construction manager, marketing and knowledge of institutional investors. Ninety percent of the firm's work is rehabilitation and all of it is commercial. The company is small and the firm needs to do about 200,000 square feet per year at its present size. The older partner will be retiring soon and the firm is not sure what it will be doing after the Kendall Square project is completed.

RENAISSANCE PROPERTIES

Location: 321 Columbus Avenue
Boston, MA

Size: 30

In-house services: Finance & Administration, Development (acquisition),
Construction, Marketing, Property Management

Adaptive Use Projects: Vesper George School of Art, Electric Carriage Garage,
Clarendon Square

Other Products: Residential renovations, new construction

Firm History: Renaissance Properties is a partnership formed ten years ago by Michael Leabmen and Roger Tackeff. They got their start by renovating old townhouses in the South End. As they completed one project, they would move up in scale in the next project. Their first adaptive use project was the Vesper George School of Art which had originally been a Turkish bath, and Renaissance turned it into sixteen residential condos. Their work has been primarily residential condos and apartments, but they have done some commercial work in the first floors of some residential projects and in an adaptive use project, the Electric Carriage Garage which also houses their offices. This structure was originally to be turned into condos, however, they determined the project would be a better commercial venture, especially when they added two floors to the building. The Clarendon Square project, which includes the conversion of the remains of the Clarendon Square Baptist church which burned in 1980, was originally awarded to another developer who wanted to convert it to a shopping mall. This fell through, and Renaissance ended up with the project which they have developed as all residential. At Two Clarendon Square, next door to church, they are converting an old firehouse into four townhouses and some commercial space. With this project, they have also ventured into new construction for the first time. The company has done extensive work in the South End and have a long term commitment to the area. Both partners live in the South End in projects they have developed. They see the future of development in Boston becoming harder and more competitive to develop in with more obstacles. In light of the changing development climate, they are leaving their options for the future open.

GUNWYN COMPANY

Location: 52 Otis St.
Bulfinch Square
Cambridge, MA

Size: 9

Principal(s): Graham Gund
Peter Madsen (President)

In-house services: Development, Accounting, Construction Management,
Affiliated Architectural

Adaptive Use Projects: Institute of Contemporary Art, Schoolhouse
Condominiums, Church Court Condominiums,
Bulfinch Square, Charlestown High School Apts.,
90 Canal Street

Other Products: New Construction, Renovations

Firm History: The Gunwyn Company was founded by Graham Gund about 14 years ago. He had started an architecture firm five years earlier, and because he was in a financial position that allowed for it, became an equity developer in projects the architecture firm was involved with. Gund's philosophy, as far as the development arm goes, is that they are "architects first and very much developers second. We don't bother with straight-forward development projects. We look for unusual projects-projects where the architecture matters". This primary emphasis on architecture is reflected in the qualifications of the development staff who all have some kind of architecture or planning background. They first started in the development business with an adaptive use project that converted an old police station to facilities for the Institute of Contemporary Art. They continued to do adaptive use projects in the Boston area, both residential and commercial. They also have done a number of new construction projects. Until recently, all of their adaptive use projects were located in the Boston area, but they have done development in New England and along the Eastern seaboard. Their first adaptive use project outside of the Boston area is The Lansburgh Residences and the Lansburgh Art Center in Washington DC which will be the first residential project on Pennsylvania Avenue.

A.W. PERRY

Location: 20 Winthrop Square
Boston, MA

Size: 10

Principal(s): John H. Spurr, Sr. (Chairman)
S. Maxwell Beal (President)
John H. Spurr, Jr. (Vice President and Treasurer)

In-house services: Property Management, Leasing, Development, Accounting.

Adaptive Use Projects: Twenty Winthrop Square, The Berkeley (420
Boylston)

Additional Products: Real Estate Investment, Office/Industrial Parks, Planned
Residential Developments, Land Development

Firm History: A.W. Perry was founded in 1884 by Alonzo W. Perry. It has remained a family owned and operated business since that time. Alonzo Perry started in the shoe manufacturing business, but in the 1880's there was a downturn in this business, so he subleased his shoemaking factory at 125 Summer Street to a third party. He made money in the process and thus began his career in real estate. Throughout its 104 years of existence, A.W. Perry has owned a good number of downtown properties. The first rehab they did was at 265 Franklin Street in the early 1960's. They rehabbed the entire building for the Putnam Fund. In the early 1970's at a building they owned at 77 Franklin Street, the tenants they rented to did their own rehabs. The first adaptive use project done was the 20 Winthrop Square project in 1982. This building, although in a prime financial district location, was underutilized and being rented to low budget tenants. One and Ten Winthrop Square had been completed by this time and A.W. Perry recognized the change in the office market that made rehabbed space acceptable. They moved the entrance to the project to the Winthrop Square side of the building, and along with their neighbor, Ryan Elliot, created and fixed up Winthrop Lane, a path between the two buildings. The Berkeley at 420 Boylston, is another adaptive use project that will be completed in 1988. They are long term owners of properties, and in some cases, it is more economical for them to recycle and bring those buildings up to date where they occupy key locations. Some buildings they presently own will be rehabbed. Although they own properties in the Combat Zone, they feel it does not make sense to develop these properties until the area is more established. They are also a co-development partner with Jaymont on the 125 Summer Street project.

RAYMOND CATTLE COMPANY

Location: 308 Dartmouth

Size: 200

Principal(s): Neil St. John Raymond

In-house services: Development, Property Management, Marketing, Sales and Leasing

Adaptive Use Projects: Ames Webster House, Exeter Street Theatre, One Winthrop Square, Charlestown Navy Yard.

Other Products: Agricultural Business, Cattle, Citrus, Bottling Plants, Heavy Construction

Firm History: The Raymond Cattle Company was founded in 1970 by Ted Raymond. This is the parent company of the umbrella companies set up to develop the different development projects. In this way, they are able to keep their overhead low. All their real estate deals are concentrated in Boston. They are an opportunistic company that does only those deals that appeal to them. Their first adaptive use project was the Ames Webster House in 1974. This was more of an architectural preservation project because they simply redecorated the interior of the building since a covenant in the sales agreement prevented them from chopping up the interior as apartments would have done. This building has become the offices for the Raymond Cattle Company along with the architect they have worked with, Childs, Bertram and Tseckares. Shortly after that, they had the opportunity to obtain the One Winthrop Square property. This had been the printing plant for the Record American which had gone into bankruptcy. Although this occupied a prime location in the downtown Financial District, it was a relatively new kind of project for this area (except for the Old City Hall project completed a few years earlier). The city provided funds to convert the triangular shaped parking area in front of the building to a public park, an amenity that benefited the building. The company is presently involved in the Charlestown Navy Yard with various projects that involve adaptive use and new construction. Raymond had purchased the Swiss-owned heavy construction firm ICOS which also owned Immobiliare New England, the primary developer at the Navy Yard. They will be involved in this project for the next 5-10 years. The Raymond Cattle Company continues to make a conscious decision to develop unique properties when the opportunities are presented to them.

APPENDIX B: Project List

<u>DATE</u>	<u>PROJECT</u>	<u>DEVELOPER</u>	<u>ARCHITECT</u>	<u>CONTRACTOR</u>	<u>DESCRIPTION</u>
1968	The Prince Bldg.	Trident Realty Trust	Anderson Notter	Gerry & Northrup Co.	90,000 SF; spaghetti factory convert to apts & offices Cost: \$1.4M
1965-70	Sears Crescent Gov't. Center	Cabot, Cabot & Forbes (present owners)	Stull Assoc.		1840; converted to offices restaurant
1970	12 Stoneholm St.	Stoneholm St. Assoc.	Anderson Notter		111,000 SF; garage converted to apts. Cost: \$1.4M
1970-71	The Warren Tavern Charlestown	Charlestown Dev. Corp.	Lawrence Rubin		1780; converted to apts. & restaurant
1971	Coolidge Bank & Trust Co. Cambridge	Stonemill Trust	Mintz & Assoc.		5000 SF; former gas station Cost: \$247,065
1971	Boston's Old City Hall Boston	Old City Hall Landmark Corp.	Anderson Notter Assoc. & F.A. Stahl Assoc.	Kirkland Const.	90,000 SF; comm'l/office Cost: \$2.7M
1972	The Garage Cambridge	Connecticut General Life Insurance Co. Wasserman Dev. Corp (original dev.)	ADD, Inc.	Jacet Const. Co.	72,000 SF; 53,000 SF (GLA) garage convert to mini-mall; 2nd renov. in 1977 Cost: \$3M
1973	Custom House Block Long Wharf	Berenson Corp.	Anderson Notter Assoc.		1837; warehouses convert to retail & apt; 74,800 SF Cost: \$2.097M
1973	The Gardner Bldg. Long Wharf	Berenson Corp.	Anderson Notter Assoc.		1830; warehouse convert Chart House rest; 9740 SF Cost: \$587,000

<u>DATE</u>	<u>PROJECT</u>	<u>DEVELOPER</u>	<u>ARCHITECT</u>	<u>CONTRACTOR</u>	<u>DESCRIPTION</u>
1973-74	Chapin Court 5 Common St.	Peter W. Staaterman	Calvin W. Opitz		1827; converted to apts. Charlestown
1974	Lewis Wharf 28-32 Atlantic Ave.	Boston Wharf Co.	Carl Koch & Assoc.		built in 1838; 6-story; condos, office & retail Cost: \$6.7M
1974	Piano Craft Guild Chickering Piano 791 Tremont St.	Gelardin/Bruner/Cott	GBC Anderson/Notter	Noram Const. Co.	220,000 SF; artist's space, comm'l, res'l; MHFA Cost: \$3.5M
1974	210 Commercial St.	North American Dev. Corp.	R.D. Fanning		converted to offices & restaurant
1970-75	The Vendome 160 Comm. Ave.	The Franchi Dev. Trust	Stahl/ Bennet	Eastern Builders Inc.	188,000 SF; hotel convert to condo/retail Cost: \$3.5M
1975	Exeter St. Theatre 26 Exeter St.	Raymond Cattle Co.	CBT		theatre converted to theatre & comm'l uses; Cost: \$800,000
1975	Assumption House Boston	E. Boston Community Development Corp.	Childs, Bertram & Tseckares	Benjamin Polisook Inc.	20,000 SF; School convert housing; Mass. Housing Fin Agency participation Cost: \$228,000
1975	Chauncy House Apts. 115 Chauncy St.	State St. Dev. Co.	Boston Architectural Team	Noram Const.	66,911 SF; 12 story office bldg. converted to apts.; Cost: \$1.275M
1975	The Berkeley Center	Urban Dynamics Inc.	Boston Arch. Team	Urban Dynamics Assoc., Inc.	44,505 SF; Church convert apts. & retail; Cost: \$807,630

<u>DATE</u>	<u>PROJECT</u>	<u>DEVELOPER</u>	<u>ARCHITECT</u>	<u>CONTRACTOR</u>	<u>DESCRIPTION</u>
1975	Institute of Contemp. Art	ICA	Graham Gund	Faletra & Kumins Inc.	22,750 SF; convert police station to gallery, restaurant & theatre Cost: \$800,000
1976	Faneuil Hall 1 Faneuil Hall	Rouse Co.	Ben Thompson & Assoc.	Macomber	220,000 SF retail space; 145,000 SF office space Cost: \$30M
1976	Mercantile Wharf Bldg.	Mercantile Assoc. James F. Sullivan Edward C. Fish	John Sharratt Assoc.		214,000 SF; res,l, comm'l; MHFA financing; Cost: \$5.1M
1976	Women's Educ. & . Indus. Union 356 Boylston	Women's Educ. & . Indus. Union	Shepley, Bulfinch Richardson & Abbott		restaurant converted to shops & offices; 27,280 SF Cost: \$927,500
1976	One Winthrop Sq.	Raymond Cattle Co.	CBT	N.S. Raymond Dev. Co.	100,000 SF; comm'l/office Cost: \$4.7M
1977	Bowdoin School	Continental Wingate Co. Beacon Hill Civic Assoc.	Boston Arch. Team	C.W.C. Builders	42,460 SF; school converted to apts.; Cost: \$1.05M
1979	Ames Webster House 355 Commonwealth	Raymond Cattle Co.	CBT		34,000 SF; house convert to offices Cost: \$200,000
1979	Union Wharf	Union Wharf Dev. Assoc. James S. Craig Austin A. Heath	Moritz Bergmeyer Assoc.		19c. wharf converted to res'l(43) & office(46) condos & townhouses(23) Cost: \$6.9M
1980	Schoolhouse Condos St. Botolph St.	Gunwyn Co.	Graham Gund	Erland Const.	Perkins School convert to 21 condos; Cost: \$2M

<u>DATE</u>	<u>PROJECT</u>	<u>DEVELOPER</u>	<u>ARCHITECT</u>	<u>CONTRACTOR</u>	<u>DESCRIPTION</u>
1981	One Post Office Sq./ Hotel Meridien	The Beacon Cos.	Jung/Brannen	Beacon Const. Co. Jackson Const.	New const & adaptive use old Federal Reserve Bank conv. to hotel 250,000 SF Cost: \$23 M
1981	Constitution Qtrs. Charlestown Navy Yard	Immobilaire, N.E.	Anderson/Notter/ Feingold	Sydney Solimeno	4 converted 19c. bldgs.; rental units Cost: \$30M
1982	One Liberty Sq. Govt. Center	Olympia & York			Built in 1926; 13-story; 148,000 SF office & retail Cost: \$7 M
1982	Dockside Place	Townrose Prop. Trust	Jung/Brannen	Barken Const	2 waterfront warehouses 89 loft/condo apts. Cost: \$4.5M
1982	Bedford Bldg. 99 Bedford St.	Morstan Dev. Co. (subsidiary of Morgan Stanley Realty, Inc.), The Bay Group and Real Property Resources Corp.	Boston Arch. Team & Int. Planning	Bay Const. Group	85,000 SF (GLA); Nat'l. Reg of Hist. Places; Office Building Cost: \$10M
1983	Church Ct. Condos. 492 Beacon	Graham Gund Assoc.	Graham Gund	Macomber	3 units in existg church; 40 new units; 73,500 SF Cost: \$8 M
1983	332 Congress	Boston Wharf Co.	Jung/Brannen	Lee Kennedy Co.	6-story warehouse;36,210 SF; luxury office space Cost: \$1.1M
1983	Grain Exchange Bldg 177 Milk St.	Beal Cos.	Jung/Brannen		75,000SF; art gallery, office space Cost: \$1.03M

<u>DATE</u>	<u>PROJECT</u>	<u>DEVELOPER</u>	<u>ARCHITECT</u>	<u>CONTRACTOR</u>	<u>DESCRIPTION</u>
1983	12 Farnsworth St.	Boston Wharf Co.			64,380 SF; 6-story office space Cost: \$4.6 M
1983	20 Winthrop Sq.	A.W. Perry, Inc.	Shepley, Bulfinch, Richardson & Abbot	Lee Kennedy & Co.	Wigglesworth Bldg;retail & office space; 30,000 SF Cost: \$2.5M
1984	The Atlantic Bldg. 400 Atlantic Ave.	Northland Realty Corp.	Jung/Brannen	Jackson Const. Co.	6-story 100,000 SF ware- house;multi-tenant office building Cost: \$6.5M
1984	Bulfinch Square	Graham Gund Assoc.	Graham Gund	Erland Const.	2-19th century bldgs; 70,000 SF.; office,theatre, restaurant, Arts Center Cost: \$7.5M
1984	One Kendall Sq.	The Athenaeum Group	Monacelli Assoc.	Beaver Builders	Former rubber factory; 1M SF office, retail, R&D space; 5 phases Cost: \$ 100M
1985	Fisher Hill 575 Boylston	Macomber Dev. Assoc.	Karlis Grinbergs		Preserved estate; 38 res'l. units
1985	The Anchorage Charlestown Navy Yard	Immobilaire N.E.	Bruner Cott		coverted to 112 apts. Cost: \$6.9M
1985	Boston Fish Pier Northern Ave.	Massport	Whitney, Atwood & Norcross	Thomas O'Connor Co.	Largest portside fishing redev. projects; 3 bldgs; 372,000 SF site; Cost: \$20M

<u>DATE</u>	<u>PROJECT</u>	<u>DEVELOPER</u>	<u>ARCHITECT</u>	<u>CONTRACTOR</u>	<u>DESCRIPTION</u>
1985	Lincoln Wharf	San Marco Bank of Boston	Boston Arch. Team	Volti Const. Co.	power station converted to 119 res'l. units; Cost: \$20M (hard costs)
1986	World Trade Center Commonwealth Pier	Pier 5 Limited Partners	Jung/ Brannen Dyer/Brown Assoc.	Gilbane Bldg. Co.	2-story; 800,000 SF; market ctr.,showrooms, exhibition space; Cost: \$100M
1986	United Shoe Machine Bldg. 140 Federal St.	Jung/Brannen?	Jung/Brannen	Turner Const.	447,000 SF, 23-story land- mark in finance district; luxury office space; Cost: \$29M
1986	90 Canal St.	Gunwyn Co.	Graham Gund		78,000 SF; warehouse converted to office; Cost: \$7M
1986	Electric Carriage Garage 321 Columbus	Renaissance Properties	Aberjone Engineering		electric carriage garage converted to offices: Cost: \$2.5M
1987	The Basilica Charlestown Navy Yard	Basilica Assoc.	Vitols Associates		Mtlworker shop convert 92 res'l. units; 119,400 SF Cost: \$9.5M
1987	Independence Qtrs. Charlestown Navy Yard	Immobiltaire N.E.	Jordan Gruzen Partnership		warehouse converted to 154 condos Cost: \$25M
1987	Old Charlestown H.S. 30 Monument Sq.	Gunwyn	Graham Gund		school convert to 44 apts. Cost: \$4.8M
1987	Prince School 201 Newbury	The Abbey Group	Grassi Tullis		school convert to retail (21,000 SF) & condos (36) Cost: \$3M

<u>DATE</u>	<u>PROJECT</u>	<u>DEVELOPER</u>	<u>ARCHITECT</u>	<u>CONTRACTOR</u>	<u>DESCRIPTION</u>
1987	One Franklin Place	Lincoln Properties	John Hoskins		combined new & rehab Kennedy's dept. store to offices; 400,000 SF; Cost: \$80M
1987	South Station .Headhouse Dewey Sq	MBTA/BRA	The Architects Collaborative Stubbins/Castro Blanco (jv) Howard Needles Tammeri & Bergdorf(jv) DeLeuw, Cather/ Parsons (jv) Skidmore Owings & Merrill WZMH/ Habib Inc.	J.F. White	Transportation, tech & office center; 73,360 SF Cost: \$ 5.5M
1988	The Boiler House Charlestown Navy Yard	Boston Harbor Investment Group	CSS Architects		119,000 SF structure; convert to 15 res'l units Cost: \$1.8M
1988	Clarendon Square	Renaissance Properties	Notter, Feingold & Alexander		burnt out church & fire- house converted to apts., condos & office Cost: \$15M
1988	The Berkeley 420 Boylston	A.W. Perry	Notter, Feingold & Alexander	Macomber	Decorative Arts Ctr converted to office space Cost: \$10M

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NOTE: This is only a sampling and not a complete listing of all adaptive use projects done in Boston.

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