

**Mill And Mercantile Conversions: A Case Study Analysis of Residential Adaptive Re-Use Projects**

by

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Submitted to the Department of Architecture  
in Partial Fulfillment of the Requirements for the Degree of  
Master of Science in Real Estate Development

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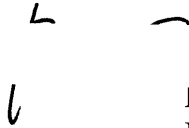
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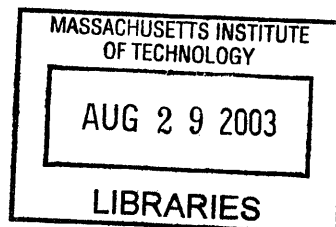
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**ROTCH**



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## **ABSTRACT**

The demand for housing, both affordable and market rate has remained high, particularly in dense urban areas. This thesis will consider the conversion of mill or mercantile buildings to urban lofts or condominium residences. First, a brief overview of the housing market, supporting demographics, and current trends is provided including a discussion of market driven design, size, layout, and amenities common to these urban residences.

Three case studies are used as a qualitative tool to analyze the successful conversion of these types of buildings. Analysis will consider physical dimension, building structure, capital structure, and project costs, including acquisition, development, and construction cost data. Tax or other incentive programs are discussed when applicable to project feasibility and developer returns identified when possible for a relative comparison.

The case study analysis will attempt to provide practical information to developers considering similar conversion projects. The information will identify conditions and inherent problems that prevail in these buildings and will provide a general context for conversion feasibility analysis.

Thesis Supervisor: Peter Roth

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## **I. Thesis Objectives**

There are many reasons for converting an existing building into a new and different product type. This paper will discuss arguments for residential mill or mercantile conversions and elaborate on why it makes sense from a market perspective. Conversion projects start with an existing building that has become functionally or physically obsolete. It goes with out saying that no two buildings are alike and thus, analysis must be done on a project by project basis. This paper is not meant to be an exhaustive analysis or complete framework for pre-development considerations of adaptive re-use projects. Rather, it aims to provide useful information and insight into completed projects to aid developers considering mill or mercantile conversion projects. To do this, physical dimension(s) and building structures will be discussed that can readily accommodate this type of conversion. In addition, using case studies of completed projects, comparisons of cost data, capital structure, rental and sales data, and returns will be made as a means for considering new projects in the pre-development stage.

## **II. Approach/Methodology**

The author conducted most of the research for this paper from his home in Boston. Data and information were gathered from literature and interviews with several developers that have completed mill, factory, and commercial conversion projects to multi-family residential products. Literature was obtained from the various industry periodicals, internet sites, and books. The interviews included developers and project staff of recently converted projects.

### **III. Introduction**

After decades of losing residents, many U.S. cities are experiencing gains in population. The growth is remarkable and is now a clear trend that appears poised to continue well into the 21<sup>st</sup> century. Urban loft and condo-living in converted buildings has been a way of life in big cities like New York and San Francisco. In more recent times, these developments have been springing up in cities all across the country. These developments can be newly constructed, but more recently, many have been adaptive re-use projects converting existing buildings into these multi-family residential spaces. Adaptive re-use projects of this nature have converted many types of buildings including commercial, existing residential, rail road stations, mills, factories, and others. This paper will focus on conversion of mills or mercantile buildings that are no longer in use and are physically and/or functionally obsolete. Many of these buildings exist in or adjacent to city centers, and now represent ideal locations for urban housing developments. However, their central locations often command high acquisition prices which previously made redevelopment a challenge. Further, these projects often prove more complex and more capital intensive than traditional developments. Developers are now leveraging a wide range of preservation, restoration, economic development, and downtown revitalization tax credits and other nontraditional financing vehicles to make these conversion projects economically feasible. Most notable, the federal rehabilitation tax-credit program has been growing, spurring this trend of adaptive re-use in tight housing markets across the country. In addition, other tax incentives and subsidy programs are available in certain areas which have contributed to these developments, including tax abatements, subsidy programs, and public/private partnerships.

Pre-development considerations are varied and complex on adaptive re-use projects. Building conversion is constrained by factors such as the types of reconfigurations that older buildings can accommodate. Structural configuration, dimension, column supports, existing windows, and load bearing capacity are just a few of the common barriers. However, successful conversions that put physically or functionally obsolete buildings back to use can be profitable while maintaining important ties to the past and adding to the vitality of our inner cities.

#### **IV. The Housing And Rental Market**

##### **i. Housing Market**

“The home has long held a place of mythic stature in the hearts and minds of Americans. Some consider home ownership a key component of a democratic society. And, as the U.S. transformed itself from a nation of renters to a nation of owners after World War II, owning a home became a tangible sign of material success and social achievement.”<sup>1</sup> The total value of our homes today is \$13.64 trillion, 92% more than just a decade ago. These staggering numbers warrant further understanding. “While stock prices are down some 35% or so from three years ago, home prices nationwide have surged 25%.”<sup>2</sup> Across the country, average housing prices rose 6.9% in 2002, and a total of 38.3% from 1997 to 2002, according to statistics from the Office of Federal Housing Enterprise Oversight. Many housing experts do not expect this trend to last, suggesting that appreciation will likely cool to more like 3% to 5% this year. Still, that run, aided by mortgage rates that have hit 40-year lows, has boosted the home-equity wealth of America’s 74 million home owning households by some \$1.8

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<sup>1</sup> Walter Updegrave, “How to build wealth in real estate,” *Money* (June 2003), p. 78

<sup>2</sup> Walter Updegrave, “How to build wealth in real estate,” *Money* (June 2003), p. 78



trillion, or an average of \$24,300 per household, according to the National Association of Realtors (NAR). It is not surprising so many Americans are looking for home ownership opportunities. In the current interest rate environment, people can put little money down, usually 10% to 20% but sometimes as little as 3%. Home ownership offers other advantages, including several appealing tax incentives. Owners can deduct property taxes and mortgage interest and at resale, excluding up to \$500,000 in capital gains from taxable income if married and up to \$250,000 if single. Suffice it to say, these trends have left a growing number of Americans looking to place their wealth in real estate, boosting the demand for home ownership to unprecedented highs.

#### ii. Rental Market

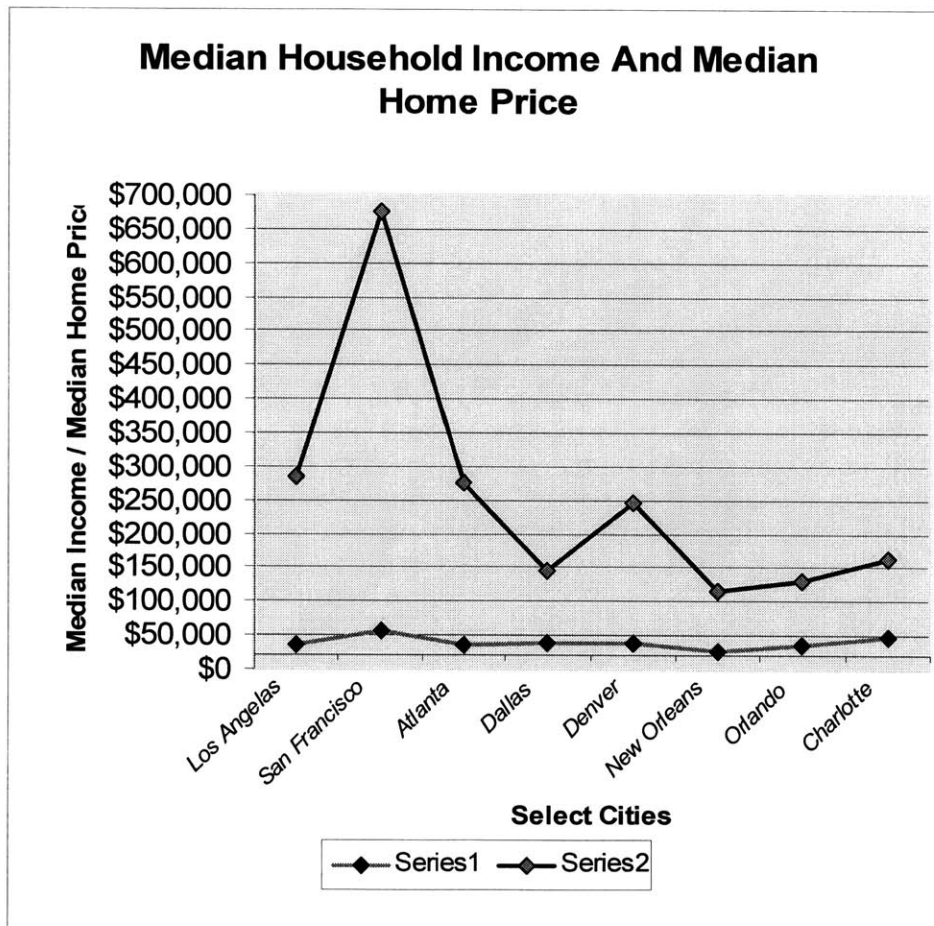
With so many Americans currently looking for home ownership opportunities the apartment rental market has suffered across the Nation. Some areas have been hit harder than others but average rents have dropped almost across the board. With the cost of home ownership down due to a favorable interest rate environment, many people who fit the rental profile are fleeing to buy. In many cases, monthly payments on a home mortgage can be nearly the same or less than the cost of renting. Landlords have been forced to lower rents and offer concessions to lure tenants. However, the rental market is expected to rebound. Broad demographic trends support this. If the expected growth in the young adult population materializes, it could translate into steady demand for rental units and a rebound in rents.

iii. Housing and Rental Cost Data

**Housing and Rental Cost Data**

	<b>Median Household Income</b>	<b>3-Bedroom House Price</b>	<b>2-Bedroom Apartment Rent</b>
<i>Los Angeles</i>	\$36,687	\$285,000	\$972
<i>San Francisco</i>	\$55,221	\$675,000	\$2,000
<i>Atlanta</i>	\$34,770	\$276,321	\$1,006
<i>Dallas</i>	\$37,628	\$143,997	\$865
<i>Denver</i>	\$39,500	\$247,123	\$811
<i>New Orleans</i>	\$27,133	\$116,985	\$610
<i>Orlando</i>	\$35,732	\$131,632	\$615
<i>Charlotte</i>	\$46,975	\$164,243	\$700

3



4

Series 1: Median Household Income  
Series 2: Median Home Price

<sup>3</sup> Data obtained from HomeFairCityReports; [www.Homefair.com](http://www.Homefair.com)

<sup>4</sup> Data obtained from HomeFairCityReports; [www.Homefair.com](http://www.Homefair.com)

The table and graph above consider the average price of a 3-bedroom home, the average 2-bedroom apartment rent, and median household income in select cities. The cost of housing, both owning and renting, appears very high, and particularly when contrasted to the average median income in each city. The graph illustrates the gap that exists between household median income and median home price across these select cities. You will notice that the gap dramatically changes between cities and that higher home prices do not always reflect a higher median income. Given that housing today is expensive, it is not surprising that almost 28 million households paid more than 30% of their income for housing in 2000. In short, this housing data indicates a real problem for people seeking more affordable housing.<sup>5</sup> Given the current demand for home ownership and expected rebound in demand for rental units, there appears to be a favorable market for more affordable for-sale and rental units.

#### iv. Summary

Increased demand for home ownership has caused average home prices to skyrocket. Concurrently, apartment rents have dropped in most areas although demographic changes suggest this will change. However, demand for home ownership is not the only reason for these results. Other factors include changing demographics, constrained single-family home supply, and the current favorable interest rate environment. “Many cities are struggling with significant housing shortages because residential construction and renovation have not kept up with the demand or because many cities have started growing again after years of stagnation or decline.”<sup>6</sup> The housing shortage is even more drastic at affordable price levels. This is true

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<sup>5</sup> John McIlwain, “Housing Now: Affordable housing in the United States is in a state of crisis,” *Urban Land* (January 2003), p. 17

<sup>6</sup> “The Affects” information summarized from: Walter Updegrave, “How to build wealth in real estate,” *Money* (June 2003)

in many major markets and particularly in cities such as Boston, Los Angeles, Seattle, Washington D.C., Chicago, and New York.

The current housing demand would indicate a favorable market for for-sale housing products, including single-family homes, for-sale lofts, flats, apartments and condominiums. While apartment rents have declined, changing demographics would suggest that apartment rents will rebound with steady demand in the near term. If this is true, a favorable market for more affordable rental units could materialize.

## **V. Demographics**

### **i. Overview**

Urban lofts and condominiums fall within the broad housing market and the overall demand for housing will contribute to the absorption of these specific product types. However, because of their location, demand for these residences is fueled by two more specific market segments of the population that are expanding: Empty Nesters and Young Professionals. The location and style of conversion residential lofts and condominiums typified by mill and mercantile conversion projects are unique, and not surprisingly, the market segments driving this demand are unique as well. Here, we will elaborate on the demographics of these market segments and the urban housing products they seek.

First, consider the broad demographic changes suggesting that adaptive re-use properties will play a greater role in overall residential growth during the coming decade. During the 1990's, central cities added residents at a dramatic pace. "According to the 2000 U.S. Census, among

the nation's top ten largest cities, only Philadelphia and Detroit lost residents in the previous decade. Of the 20 largest cities, 16 gained population from 1990 to 2000. Smaller cities have experienced this trend as well. Austin, with a 41% rate of growth from 1990 to 2000, topped the list in terms of percentage growth. Charlotte grew by more than 36%, Denver by more than 18%, while Nashville, Seattle, and El Paso all posted impressive growth rates in this period.”<sup>7</sup>

Why the rebound in city population growth? Empty Nesters and Young Professionals play a significant role in this inner city migration.

#### ii. Young Professionals

Today's inner-cities and inner-ring suburbs are experiencing new demand for housing, particularly by a younger class of working people. Over the past few decades, working professionals have found themselves spending much of their time commuting by car. Urban properties offer a more convenient option to long commutes and ultimately time wasted in the car. Some suggest that the nature of new households being formed plays a significant role in the growing number of young professionals seeking urban core properties. “The nation now is adding few traditional families, married couples with children at home, the population that fueled suburban population growth in previous decades. Instead, the bulk of the nation's new households are composed of singles living alone or couples with no children. This pattern reflects factors such as increased divorce rates, the tendency to wait longer to marry, and more

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<sup>7</sup> Information inferred from: U.S. Bureau of Census ([www.uscensus.org](http://www.uscensus.org)), “Ranking Tables for Incorporated places of 100,000 or More”

individuals financially able to live alone.”<sup>8</sup> “For these mobile young professionals, renting represents the most sensible option, as purchasing would commit them to a home that would have to be sold in the event of career advancement or a move.”<sup>9</sup> With more financial stability, these individuals are demanding upscale amenities in multifamily dwellings that might otherwise only be found in an owned home.

This group is a large segment of the urban core rental market and generally has a propensity to rent large, open plan loft residences because these units adequately meet their needs as singles or working professionals. According to M/PF Research, Inc. singles living alone account for 56% of the market for new urban core rental apartments and another 29% are childless couples. Growth in the young adult population should also translate into steady demand in the near term for this single room, open plan product type. Every year for the next decade, about 4 million U.S. residents will reach their early 20’s, the age at which new household formation typically occurs. Notably, ‘this segment fit the renter profile generally and the urban renter profile specifically.’<sup>10</sup>

### iii. Empty Nesters

Empty Nesters are a second segment helping fuel the return to downtown and inner city areas. This generation, now rapidly moving into retirement represents more than 30% of the U.S. population or nearly 70 million people. They have a combined disposable spending power of

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<sup>8</sup> Greg Willett, “City Living,” *Multifamily Trends* (Fall 2002), p. 60

<sup>9</sup> Lou Ann York, “A Demand For More,” *Multifamily Trends* (Fall 2002), p. 20

<sup>10</sup> Greg Willett, “City Living,” *Multifamily Trends* (Fall 2002), p. 60

\$930 billion according to a recent Reality Times article.<sup>11</sup> This group has greater wealth, is not as price sensitive, and does not mind the cost as long as their lifestyle needs are met. These people returning to urban cores are looking for convenient, hassle-free housing in the heart of what's happening. The hassle of urban living while raising a family may have previously pushed this segment to the suburbs. Similarly, poor inner city schools often caused these people to flee to the suburbs where their kids could get a quality education. Now with the kids grown up, these factors no longer contribute to their housing choice, and they can now focus on their own desires. This segment can typically afford more and with greater accumulated wealth and certainty about their future, prefer to own. They look for urban condominiums that can include everything from snazzy uptown lofts to flats in low- and mid-rise neighborhoods, to glitzy high rises. The most important factors driving this segment to urban locations are amenities, convenience, and location. With this segment, urban condominium living is fast becoming a lifestyle choice rather than a necessity. As the baby boomers age, the demand for amenity rich, for-sale urban condominiums will likely continue to rise.

#### iv. Summary

Developers will likely continue to respond to the increasing demand for urban housing. The young professional and empty nester segments of the population are likely to continue to demand the urban products rolled out in the near term and will contribute to an urban apartment marketplace that is more diverse and more flexible. These market niches have specialized needs and demand rental and for-sale loft apartments and rental and for-sale

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<sup>11</sup> Michele Dawson, "Homebuilders, Remodelers Angling for Aging Population," ([WWW.Realitytimes.com](http://WWW.Realitytimes.com)), May 21, 2002

condominiums. The distinctions in the two products can be quite varied but just as often overlap. In the marketplace, when one refers to an urban loft they could be speaking of what someone else is calling an urban condo and vice versa. For the purposes of this paper, we will define each product type more specifically and elaborate on the most common differences.

## **VI. Product Description**

### **i. The Loft Unit**

The traditional loft is generally a big, open space style of residential dwelling not chopped up or partitioned into different rooms. This style has been popular in larger cities but is now springing up in cities of all sizes. Over time, the term 'loft' has come to mean different things. For the purposes of this paper, the traditional definition typified by a single habitable space made up of a single room will apply. The loft design typically features high ceilings and open floor plans that range in sizes from 700 to 2000 square feet. Any space partitioned within the unit is usually accomplished with furniture or interior design elements.

The design concept came about when developers attempted to convert existing buildings whose footprint would not efficiently accommodate a traditional apartment layout. The perfect building for traditional apartment conversion is 60 feet deep. This depth can accommodate double loaded units roughly 25 feet deep separated by an interior corridor roughly 5 feet wide. Buildings deeper than this make multi-habitable living spaces typical of an apartment configuration a challenge because the interior living spaces (bedrooms) cannot accommodate a window. Here, the loft unit works because natural light can reach into the one room configuration. In addition to an open floor plan, loft designs try and mix the "old"



with the “new,” which is why conversion projects are likely targets for this product type. Common elements include contemporary cabinets and appliances blended with exposed pipes, ducts, electrical connection boxes, and original brick walls. Oversized windows are also a common feature. These minimalist design elements allow for expression of the residents. A developer of new loft residences in Minneapolis believes these design elements represent one way to make multifamily loft units affordable and hip--affordable because the units are small and leave much of the interiors exposed, and hip because of their loft based design.’<sup>12</sup> This open design creates the perception that there’s a greater space and is aligned with the tenant’s lifestyle. Loft units can be rental and for-sale dwellings.

## ii. The Condominium Unit

Residents seeking the urban condominium desire something more than the urban loft. “They are accustomed to the larger homes they left behind and while they like the lifestyle associated with the small apartments that characterized cities of the past, they seek something different.”<sup>13</sup> Similar to the loft concept, minimalist design and an open feel are common features of the urban condominium. However, the urban condo is bigger, with rooms slightly more partitioned. The interior space may not be separated by traditional partitions but half-height walls, nooks, pocket doors, and interior windows between rooms serve to divide the interior space. The design idea aims to divide the interior space but still provide big volumes of space and open, flexible floor plans. Pocket doors, which slide on tracks and tuck unobtrusively into walls, can subdivide these rooms for privacy and be opened for gatherings. Similarly, living rooms, breakfast nooks, kitchens, dining rooms, and even bedrooms can be

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<sup>12</sup> Frank Jossi, “Designing Interiors,” *Multifamily Trends* (Spring 2003), p. 43

<sup>13</sup> Andrew Trivers, “The Resurgence of Urbanity,” *Multifamily Trends* (Winter 2003), p. 8-10

combined into open expanses. 'Ultimately, the major distinction between affordable, typically rental loft spaces, and high-end, typically for sale condominium spaces, comes down to size, the quality of appliances, and the quality of decorative features.'<sup>14</sup> Larger windows, higher ceilings, and an overall higher level of finish characterize these units. Aside from design, these residents demand more convenience and a hassle free lifestyle. They desire the high-end amenities commonly found in luxury apartments. These can include underground parking, elevator access, concierge services, fitness facilities, and elaborate building and unit security systems. The urban condominium unit can be rental and for-sale dwellings.

## **VII. Markets**

### **i. The Loft Market**

Urban core properties, including urban housing have not been completely immune to softened rental market conditions experienced in virtually all metropolitan areas nationwide. Vacancy rates for rental properties have climbed and rental growth has been sluggish. This is not surprising and can be at least partly explained by the volume of new product coming to market in many cities. "Furthermore, because lifestyle choices play a big part in a person's decision to live in the heart of the city; urban rental projects generally were not hit as hard by the move-outs that resulted from the surge of first-time, single family home purchases that occurred in the past year."<sup>15</sup> If renters of these urban properties were spurred to buy, in many cases they purchased similar properties within the same urban environment. As a result, the for-sale loft market has been very good. The demand for home ownership opportunities has translated into a good for-sale urban loft market in many cities.

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<sup>14</sup> Frank Jossi, "Designing Interiors," *Multifamily Trends* (Spring 2003), p. 44

<sup>15</sup> Greg Willett, "City Living," *Multifamily Trends* (Fall 2002), p. 58

The apartment rental market has suffered across the Nation. The urban lofts rental market has not been immune and has suffered but not to the extent more traditional apartment complexes or garden style apartment units have. This is likely due to the lifestyle choice of living downtown. With so many Americans currently looking for home ownership opportunities, some loft rental units have been converted to for-sale units. This is one trend resulting from the high demand for home ownership and falling rents for urban lofts. However, the rental market is expected to rebound. Broad demographic trends support this. If the expected growth in the young adult population materializes, it could translate into steady demand for rental units and a rebound in rents.

It is not clear how the terrorist attacks of September 11, 2001 have impacted the market for for-sale and rental urban loft units just yet. It's clear that the appeal of living in an urban environment may have been dampened and in particular in high-rise apartments. Developers have reacted by adding more security measures and to date no significant decreased demand is evident.

#### ii. The Condominium Market

Amid the seemingly never ending escalation of housing prices, the market for for-sale condominiums is doing even better. According to a recent Multifamily Trends article, we are experiencing a time of "Condo Fever." The condo market has been particularly vibrant in larger markets, namely New York City, Chicago, and San Francisco for some time now. Today, Houston, Washington D.C., Atlanta, and Dallas are the metropolitan areas that have

added the most urban housing stock. Other large metropolitan areas adding significant volumes of urban housing during the past few years include Phoenix, Seattle, Tampa, Denver, and Miami. This product is not exclusive to the nation's largest cities, however. Memphis, Orlando, Portland, Cincinnati, and Providence have also experienced notable increases in condominium sales. To put this into perspective, the condo count in downtown Memphis has grown by 2,500 units since 1995.<sup>16</sup>

'Nationally, according to the National Association of Realtors (NAR), the condominium market set a new record in 2002. As of the second quarter, existing condo sales were running at a seasonally adjusted annual rate of 831,000 units. This is .7% off the record-setting run of 837,000 sales recorded in the first quarter, but still is 12% above the 742,000 units sold a year earlier.'<sup>17</sup> Even more notable, NAR's data also show that condominium appreciation is double that of single-family houses. In the second quarter of 2003, median price of existing condos was \$139,000, up 14.7% from a year earlier. In contrast, the median price of an existing stand-alone house was \$157,000, an increase of 7.4% from the second quarter of last year.<sup>18</sup>

### **VIII. Developer Response**

Developers have recognized the demand from Young Professionals and Empty Nesters and in turn, have responded by delivering multi-family projects featuring rental and for-sale loft units and for-sale condominium units. In some instances, these unit types together can be seen together in recent urban conversion projects. Some subsidy and incentive programs,

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<sup>16</sup> Greg Willett, "City Living," *Multifamily Trends* (Fall 2002), p. 43

<sup>17</sup> Lew Sichelman, "Condominium Market on Fire," *Multifamily Trends* (Winter 2003), p. 9

<sup>18</sup> Lew Sichelman, "Condominium Market on Fire," *Multifamily Trends* (Winter 2003), p. 9

namely the 20% rehabilitation tax credit, mandate the unit mix and whether units can be for-sale or lease and rent at market rate or some percentage below market rate. In any case, the demand from both segments has resulted in traditional loft units and urban condominiums being delivered in recent conversion projects.

## **IX. Federal Incentive Programs**

### **i. Overview**

Conversion projects are complex development processes that depend on a number of interrelated drivers and barriers. There is no simple formula that can be adopted by a developer; rather it depends upon the positive outcome of a wide range of social, political, economic, and technical variables. Recent conversion activity has been spurred in response to incentive programs, namely the federal historic preservation tax-incentive program also known as the rehabilitation investment tax credit.<sup>19</sup> “This program is one of the nations’ most successful and cost-effective community revitalization programs. The program fosters private sector rehabilitation of historic buildings and promotes economic revitalization. It also provides a strong alternative to government ownership and management of such historic properties. The Federal Historic Preservation Tax Incentives are available for buildings that are National Historic Landmarks, that are listed in the National Register, and that contribute to National Register Historic Districts and certain local historic districts.”<sup>20</sup> Since 1976, tax incentives have produced more than 27,000 rehab projects totaling \$18 billion. This includes more than 149,000 housing units of which over 30,000 are low and moderate-income units. The revised program became available in 1998 and has grown substantially since. In 1998,

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<sup>19</sup> Tim Heath, “Adaptive re-use of offices for residential use, The Experience of London and Toronto,” *Cities* (Vol. 18 2001), p. 173

<sup>20</sup> Information sited from: The National Park Service website; [www.National Park Service.gov](http://www.NationalParkService.gov).

there were 1,036 tax-credit rehab projects approved including conversions into apartments, office buildings, and hotels, totaling \$2.09 billion, with the average project costing \$998,057. By fiscal 2002, there were 1,200 tax-credit rehab projects totaling \$3.27 billion, with an average cost of \$2.77 million. About 41% of these rehabs were apartments including many created from mill or factory conversion.<sup>21</sup>

The Preservation Tax Incentives reward private investment in rehabilitating historic properties such as offices, rental housing, and retail stores. Since 1976, the National Park Service (NPS) has administered the program in partnership with the Internal Revenue Service and with State Historic Preservation Officers. The tax incentives have spurred the rehabilitation of historic structures of every period, size, style and type. They have been instrumental in preserving the historic places that give cities, towns and rural areas their special character. Through this program, abandoned or under used schools, warehouses, factories, churches, retail stores, apartments, hotels, houses, and offices throughout the country have been restored to life in a manner that maintains their historic character. Current tax incentives for preservation, established by the Tax Reform Act of 1986 (PL 99-514; Internal Revenue Code Section 47 [formerly Section 48(g)]) include:

- 20% tax credit for certified rehabilitation of certified historic structures.
- 10% tax credit for the rehabilitation of non-historic, non-residential buildings built before 1936.

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<sup>21</sup> Ray A. Smith, "Lofts Lift Smaller Cities," *The Wall Street Journal*, June 2, 2003, p. B8

ii. 20% Rehabilitation Tax Credit

The 20% rehabilitation tax credit equals 20% of the amount spent in a certified rehabilitation of a certified historic structure. This credit applies to any project that the Secretary of the Interior designates a certified rehabilitation of a certified historic structure. The credit is available for properties rehabilitated for commercial, industrial, agricultural, or rental residential purposes, but it is not available for properties used exclusively as the owner's private residence.

A certified historic structure is a building that is listed individually in the National Register of Historic Places or a building that is located in a registered historic district and certified by the NPS as contributing to the historic significance of that district. This designation is for buildings only and does not apply to any other structure such as a bridge, ship, railroad car, or dam.

The NPS must approve, or "certify," all rehabilitation projects seeking the 20% rehabilitation tax credit. A certified rehabilitation is a rehabilitation of a certified historic structure that is approved by the NPS as being consistent with the historic character of the property and, where applicable, the district in which it is located. The NPS assumes that some alteration of the historic building will occur to provide for an efficient use. However, the project must not damage, destroy, or cover materials or features that define the building's historic character.

The NPS reviews the rehabilitation project for conformance with the "Secretary of the Interior's Standards for Rehabilitation," and issues a certification decision. The entire project

is reviewed, including related demolition and new construction, and is certified, or approved, only if the overall rehabilitation project meets the standards.

After the rehabilitation work is completed, the NPS evaluates the project against the work proposed. Only completed projects that meet the Standards for Rehabilitation are approved as “certified rehabilitations” for purposes of the 20% rehabilitation tax credit.

To be eligible for the 20% rehabilitation tax credit, a project must also meet the following basic tax requirements of the Internal Revenue Code:

- The building must be depreciable. That is, it must be used in a trade or business or held for the production of income. It may be used for offices, for commercial, industrial or agricultural enterprises, or for rental housing. It may not serve exclusively as the owner’s private residence.
- The rehabilitation must be substantial. That is, during a 24-month period selected by the taxpayer, rehabilitation expenditures must exceed the greater of \$5,000 or the adjusted basis of the building and its structural components. The adjusted basis is generally the purchase price, minus the cost of land, plus improvements already made, minus depreciation already taken. Once the substantial rehabilitation test is met, all qualified expenditures, including those incurred outside of the measuring period, qualify for the credit.
- The property must be placed in service or returned to use.
- Generally, the building must be a certified historic structure when it is placed in service. There can be exceptions to this rule.



- Qualified rehabilitation expenditures include costs associated with the work undertaken on the historic building, as well as architectural and engineering fees, site survey fees, legal expenses, development fees, and other construction-related costs, if such costs are added to the basis of the property and are determined to be reasonable and related to the services performed.

Generally, the tax credit is claimed on IRS form 3468 for the tax year in which the rehabilitated building is placed in service. Unused tax credit can be "carried back" one year and "carried forward" 20 years. The owner must hold the building for five full years after completing the rehabilitation, or pay back the credit. If the owner disposes of the building within a year after it is placed in service, 100% of the credit is recaptured. For properties held between one and five years, the tax credit recapture amount is reduced by 20% per year. The NPS or the SHPO may inspect a rehabilitated property at any time during the five-year period. The NPS may revoke certification if work was not done as described in the Historic Preservation Certification Application, or if unapproved alterations were made for up to five years after certification of the rehabilitation. The NPS will notify the IRS of such revocations. Rehabilitated property is depreciated using the straight-line method over 27.5 years for residential property and over 39 years for nonresidential property. The depreciable basis of the rehabilitated building must be reduced by the full amount of the tax credit claimed. Owners of an LIHTC project may sell (syndicate) the tax credits to limited partner investors who contribute equity for the project in return for the use of the tax credit and other tax benefits generated by the project. The project developer usually retains ownership in the project and acts as the general partner. The limited partner investors are usually not involved

in the management of the project, but have concerns that the project be maintained in compliance with tax credit regulations. If not, they may be subject to tax credit recapture and penalties.<sup>22</sup>

## **X. Mill/Mercantile Conversion: The Opportunity**

“Between 1880 and 1920, the U.S. textile industry grew dramatically in the Southeast. In this area, labor was still cheap and growth was swift. In North Carolina, more than 150 mills were built in the late 1800’s. Mill production in the Southeast lasted about a century before cheaper labor elsewhere in the world led to decreased production and ultimately left empty mills scattered about the Southeast.”<sup>23</sup> Areas along the east coast experienced significant mercantile production at the turn of the century. Vacant mills found in the Southeast and obsolete mercantile buildings along the east coast are now architecturally significant and offer unique adaptive re-use opportunities. Many are now being turned into lofts, urban condos, artist live/work space, and affordable housing.

The capacity of an obsolete or unused mill or mercantile building to undergo a change in use is dependent on a number of factors. These include both the building itself as well as a number of external factors, such as market demand and zoning. Therefore, it can not be assumed that all existing buildings of this type in central or fringe locations can automatically be converted to residential use. However, the opportunity for for-sale and rental loft units and for-sale condominium units in these buildings appears favorable. Case studies follow that consider the successful conversion of existing mill and/or mercantile buildings. Physical

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<sup>22</sup> “Federal Incentive Programs” information cited, summarized, and referenced from publications by The National Park Service and affiliated website; [www.National Park Service.org](http://www.NationalParkService.org).

<sup>23</sup> Steve Bergsman, “From Mills to More,” *Urban Land* (April 2003), p. 67

dimension, building structure, capital structure, and project costs, including acquisition, development, and construction cost data is considered when possible. Tax or other incentive programs are discussed when applicable to project feasibility and developer returns identified when possible for a relative comparison.

## **XI. Case Studies**

### **i. Osage Lofts: Denver, Colorado**

#### **a. Project Overview**

Residential real estate in Denver has risen dramatically over the past decade. It has become increasingly difficult to find market-rate housing suitable for young professionals and local artists affordable to median-income earning households. It was apparent to developers that there was a void here and strong demand for more affordable home ownership opportunities. With a strong professional team and a community-oriented vision, Wynway Osage Developments, LLC (Wynway) wanted to fill this void by pursuing profitable conversion projects that integrated existing neighborhoods and buildings with current city needs.

Completed in 2002, the Osage Lofts provide a transit-oriented community only minutes from downtown Denver. The original warehouse, built in 1921, is located just outside the CBD of Denver. The original building, rich in history, is not a registered historic landmark. The developer opted not to register with the National Park Service due to restrictions imposed by historic certification. Renovation of the structure was in keeping with its original architecture. At completion, Osage Lofts offered 32 for sale live/work lofts priced well below other similar units in downtown Denver.

The development team consisted of local professionals, who understood the market and the area. Project Supervisor Katie Wolfe commented, “We saw the opportunity to provide Denver habitants with a unique option to build home equity in a booming market. Going in,

the average cost per unit was modeled at approximately \$171,000; far below the current average residence price in the Denver MSA. With unobstructed views of both the Denver cityscape and the Rocky Mountains, this location is idyllic as it also sits on the RTD light rail.” At the time of development, John Hickenlooper was Chairman of Wynkoop Brewing Company; the managing member of Wynway Osage, LLC. Mr. Hickenlooper is credited with starting the Denver LODO (Lower Downtown) revitalization with his involvement in several conversion projects including the development of the Wynkoop Brewery and 3 notable loft projects. Mr. Hickenlooper is a long time resident of Denver and is currently serving as the Mayor of Denver.

At the time of acquisition, local perception of the area was uncertain and many considered it blighted. With confidence in its proximity to downtown and a strong market for more affordable home ownership opportunities, Wynway pursued the first renovation of its kind in this area. Wynway began pre-selling units in August of 2001. 87% of the units are sold or under contract as of June, 2003 commanding an average sales price of \$184,000.<sup>24</sup>

#### b. Site History

The Osage property was originally built in 1921 and was owned and operated by the Mountain States Telephone Company. Mountain States was the first in its industry to be located in Denver. Although the company is gone, the memory lives on with a reminder of its heritage. On the south facade of the building is a written tribute to this historic Denver company which has been preserved. From 1987 to 2001, the site was owned and operated by

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<sup>24</sup> “Project Overview” information summarized from project documents provided by Wynway Osage Developments, LLC and interviews conducted with project staff.

Osage Initiatives, Inc., a non-profit company who leased the space to a variety of tenants. In November of 2000, Wynway purchased two buildings on the site for \$2.7 million.<sup>25</sup>

c. Development Program

The target market included young professionals working in Denver, using the RTD Light Rail as a source of transportation, or wishing to live and work out of their home. There was high demand from this demographic segment for loft units priced below \$200,000. Katie Wolfe commented that, “The market in Denver is very good for product in the \$150,000 to \$215,000 range. There’s not a lot of product available in this range and it moves fast. The market is saturated with higher priced units in the \$300,000 to \$350,000 range. This is not moving nearly as fast.” Wynway’s approach to the building layout sought to deliver the maximum number of 900 square foot units, priced near \$170,000. The project designer noted that the interior columns were 16 feet on center and, “internal layout of units was pretty much dictated by existing column spacing.” Demising walls constructed around the columns made each unit 16 feet wide. “This column spacing is not always easy to work with, but for the loft units typical of live/work units, they were perfect.” At completion, the building footprint was divided into 32 live/work units ranging in size from 746 to 1,282 square feet with the average unit approximately 900 square feet. The development spanned roughly 18 months. Schematic drawings began in May of 2001 with construction completed in October, 2002. Construction activities were completed in 12 months.

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<sup>25</sup> “Site History” information summarized from project documents provided by Wynway Osage Developments, LLC and interviews conducted with project staff.

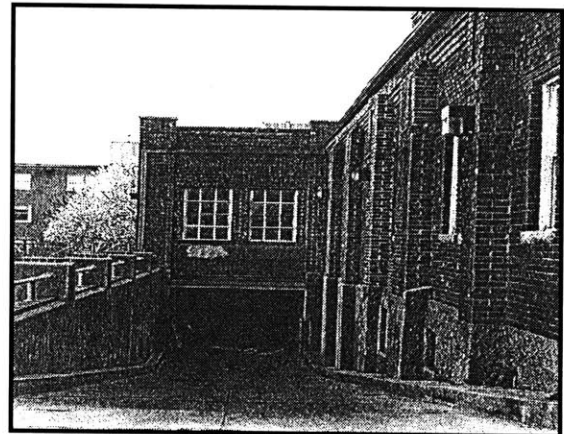
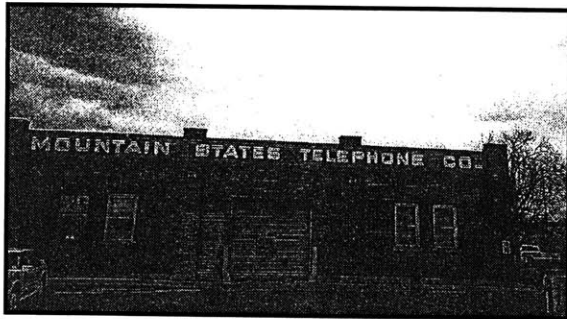
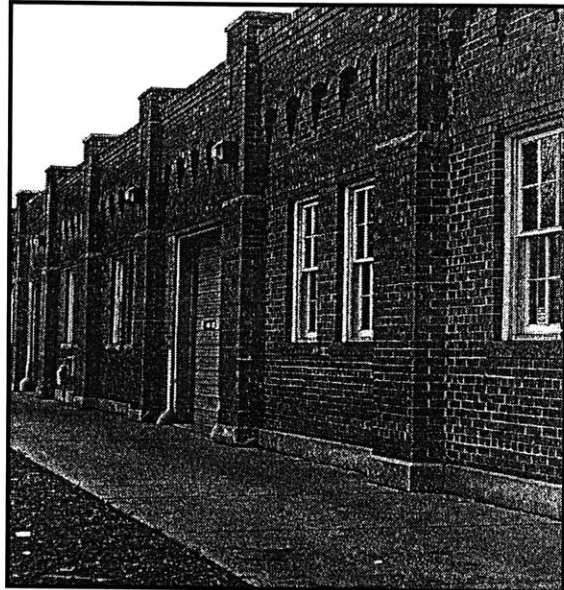
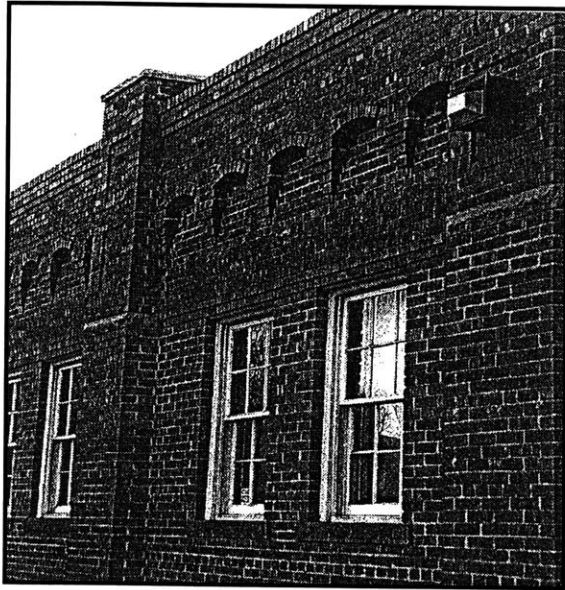
At the outset, the interior of the building was completely gutted, leaving only the exterior walls. Walls were cleaned and re-pointed as needed but were in very good condition overall. The developer wanted to preserve raw space as much as possible. Interiors now feature exposed brick, ducts, electrical connection boxes, and other elements normally hidden in walls or above finished ceilings. This minimized construction costs and actually added to the “loft” feel they were trying to achieve.

Each studio has an exterior private entry, 16 foot ceilings, an oversized full bathroom, kitchen, large living/work area and a small second floor mezzanine platform. The units are typical of the traditional loft; deeper than traditional apartments with an open floor plan. Extra large ‘loft style’ windows were installed to create a bigger feel and permit natural light to reach the rear area of the units. The original windows were in good shape but simply were not big enough given the depth of the units. With plenty of surface parking spaces, one underground parking space per unit and optional secured storage units, this property has many amenities that create an innovative and comfortable living and work environment.<sup>26</sup>

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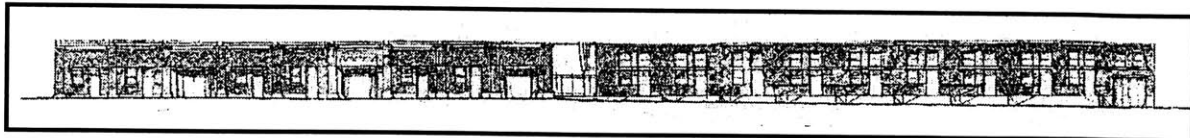
<sup>26</sup> “Development Program” information summarized from project documents provided by Wynway Osage Developments, LLC and interviews conducted with project staff.

d. Project Photos



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e. Exterior Rendering



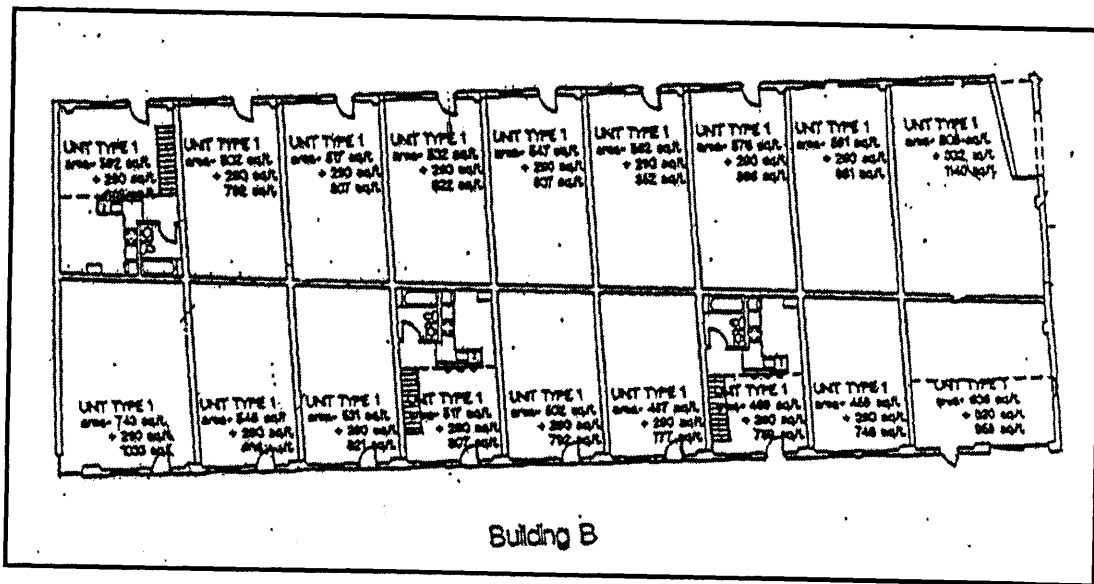
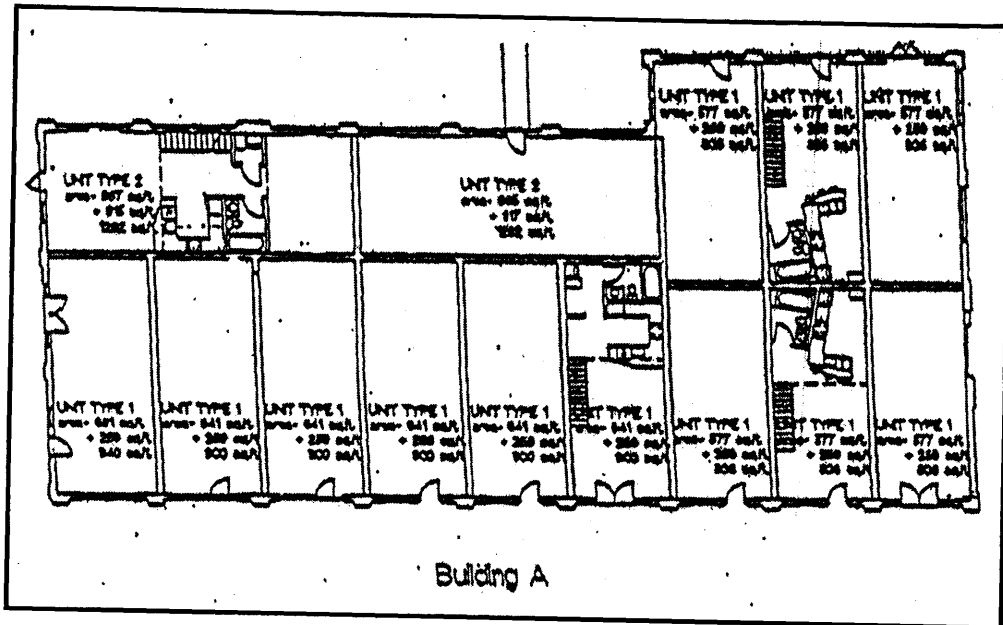
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<sup>27</sup> "Project Photos" provided by Wynway Osage Developments, LLC.

<sup>28</sup> "Exterior Rendering" provided by Wynway Osage Developments, LLC.

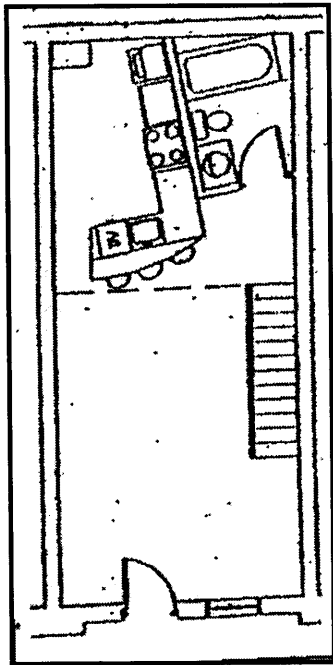


f. Building Floor Plan

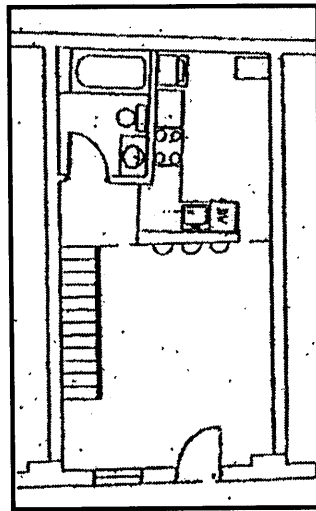


<sup>29</sup> "Building Floor Plan" provided by Wynway Osage Developments, LLC.

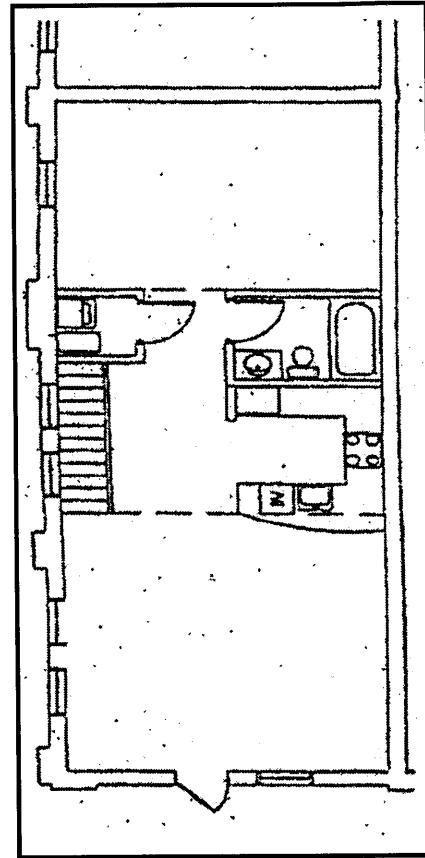
g. Unit Floor Plans



Unit Type 1 (Large)



Unit Type 1 (Small)



Unit Type 2

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\* All floor plans include an upper floor mezzanine space above the kitchen/bath area accessed by stairs shown.

h. Deal Structure and Financial Analysis

Wynway Osage, LLC is a joint venture between the Wynkoop Brewing Company and a local development entrepreneur. Registering the building on the National Registry of Historic Places with the NPS would have provided the possibility of rehabilitation tax credits to the developer but a strategic decision was made to not list the property. The development group

<sup>30</sup> "Unit Floor Plans" provided by Wynway Osage Developments, LLC.

did not want to be limited by guidelines imposed by the historic status and intended to immediately sell the new units. Equity required upfront totaled 35% of total development costs or \$1,675,919. This amount was funded by private investors and the developer. A construction loan was obtained to fund development with interest payments totaling \$74,074. The loan matured 12 months after completion as which time funds from unit sales were available to pay off the note. No take out financing was needed at that point.

The static returns projected when all units are sold are very favorable. They should obtain a return on investment of 20% and a levered return on equity of 59%. To date, the IRR on this project is near 14% but this should increase as the final 10% or 6 remaining units are sold. Assuming the remaining units are sold by the end of 2003 at the same average sales price, the project IRR will approach 30%. The current project NPV is negative using a 10% discount rate. However, it's likely that the project NPV will be positive once all units are sold. This of course, hinges on when and the price the remaining units are sold. Assuming the remaining 6 units sell by the end of 2003 at the average price other units have sold, the NPV will be nearly \$650,000. The 10% discount rate was used in the NPV calculations because the developer insisted the risk was minimal compared to similar conversion projects.<sup>31</sup>

i. Unit Information

Type	Number	Square Footage	Unit Sales Range	Per SF Sales Range
Loft/Studio	32	800-1,232	\$157,000-\$254,00	\$196-\$206
Total	32			

32

<sup>31</sup> "Deal Structure and Financial Analysis" information summarized from project documents provided by Wynway Osage Developments, LLC and interviews conducted with project staff.

<sup>32</sup> "Unit Information" provided by Wynway Osage Developments, LLC.

j. Development Costs

<b>Osage Lofts</b>				
	<b>Type</b>	<b>Total</b>	<b>Per Unit</b>	<b>Per GSF</b>
<i>Units</i>	Site Acquisition	\$1,882,300	\$58,822	\$67
32	Construction Costs	\$2,489,557	\$77,799	\$88
<i>GSF</i>	Soft Costs	\$416,483	\$13,015	\$15
28,203	Total Development Costs	\$4,788,340	\$149,636	\$170

33

k. Conclusions

From the developer’s perspective, this project was a success for many reasons. The renovation added 32 units of work/live housing units below the median household price in Denver while restoring a historic building. Some will argue that the developer should have been required to provide some percentage of units to low- and moderate-income residents. This was not stipulated and the developer opted to build and sell all market rate units. It should be noted however, the developer’s objective was to provide market rate units well below median home prices in the area. To date, 83% of the units are sold with a total of 87% under contract. The median sales price of units sold is \$180,000, just under originally projected average sales price of \$184,000.

Although the building is rich in history, it is not a registered historic landmark. Community advocates suggested its candidacy for historic status but the developer did not wish to list it with the NPS. This was a strategic decision they did not want to be limited by guidelines imposed by the NPS. Still, the development objective was to preserve the original building.

The renovation did not appear complex and the market was hot for traditional loft style units in the median price range. The building footprint was perfect for this product type. With

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<sup>33</sup> “Development Costs” provided by Wynway Osage Developments, LLC.

columns spaced 16 feet apart, units are skinnier than traditional loft spaces but suitable for work/live space. High ceilings allowed for a second story mezzanine and frequent windows provided adequate light into the deep units. Given the existing dimensions, this was an efficient use of the space and market demanded product. Further, its location was well-suited for this market which placed great value on public transportation. Thus, the developer privately funded the project with investor groups and did not seek non-traditional funding or utilize incentive programs.

Favorable returns appeared viable through condominiumizing the units and selling them at market rate. The development team completed similar re-use projects and were comfortable with the construction risk of the conversion. By developing artist studios and live/work units on the property, the existing structure has been renovated, live/work units have been completed, and the project adds to the vitality of the neighborhood. The current culture is artsy and welcomes community interaction, which is now supported and legitimized by this development.

ii. Cotton Mill: New Orleans, Louisiana

a. Project Overview

Based in New Orleans, Louisiana, Historic Restorations, Inc. (HRI) is a full service real estate development company and a national leader in the adaptive re-use of historic structures. In 1997, when HRI began pursuing the Maginnis Cotton Mill site, the New Orleans' Warehouse District was becoming increasingly popular. Many smaller buildings were being converted and were instant successes. The Cotton Mill's location was excellent and with few large buildings suitable for conversion in the District, HRI was convinced that the future success of the district would be ensured by the desire of young professionals to live near the heart of the city where they work and play. To date, they have been proven right.

The renovated building sits in the heart of New Orleans' historic Warehouse District and offers rental apartments and for-sale luxury penthouse condominiums. Built of heavy timber and masonry, the Cotton Mill occupies a city block. The property features a 20,000 square foot interior courtyard, one-, two- and three-bedroom apartments and penthouse condos, a renovated water tower, 8,000 square feet of commercial space and a state-of-the art fitness center. In 1997, the 323,333 square foot project was the largest adaptive-reuse renovation in the U.S., and received several accolades, including the National Homebuilders Award, the Multi-family Rehabilitation Project Award, and a National Preservation Honor Award from the National Trust for Historic Preservation. "HRI showed that preservation can be economically feasible and socially desirable," said Richard Moe, president of the National Trust. "HRI turned this eyesore into a community showpiece. Such projects are a model for

preservation in other cities.”<sup>34</sup> The project represents just one of HRI’s success stories around the country.

b. Site History

The first use of the Maginnis Cotton Mill site was as a plantation. Between 1881 and 1887, the Maginnis family systematically bought up every last property owner in the area. Eventually sprawling over an entire city block, the Maginnis mill, which resembled comparable textile complexes in the northeastern United States, was possibly the largest cotton mill in the southern United States at the turn of the century. By 1900, it had "grown to be one of the most important manufacturing institutions of New Orleans, if not the most important".<sup>35</sup> At its peak, the mill employed over 1,000 men, women, and children. By 1885, the Maginnis engines fired 17,000 spindles and 454 looms. Mill capacity was 5500 pounds of cotton, or 22,000 yards of cloth a day.

Buildings were added to the site over many years. By 1940, the final architectural form of the building was complete with a structure taking up an entire city block. The final addition effectively closed off an interior courtyard. By World War II, the Maginnis name was gone from the mill as the buildings were purchased by real estate holding companies. The buildings were chopped up and leased to commercial businesses. Textiles continued to be the

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<sup>34</sup> “Project Overview” information summarized from project documents provided by Historic Restorations, Inc., interviews conducted with project staff, and information originally printed at [www.hrihci.com](http://www.hrihci.com).

<sup>35</sup> Greg Thomas; *Times-Picayune*

mainstay of the block during the postwar period until the building's closure in the mid-1980's.<sup>36</sup>

Where workers once toiled in a Southern cotton mill, people now enjoy new housing. Although the building went through a number of tenants, nobody rose to the challenge of restoring it. Today it has come back to life. "More than any other company, HRI has caused the revitalization of the Warehouse District in New Orleans," said Camille J. Strachan, Vice Chairman of the National Trust Board of Trustees. "Pres Kabacoff and Ed Boettner, with their busy company of 200 people, are spreading the benefits of historic and adaptive restoration all across the country."<sup>37, 38</sup>

### c. Development Program

The Cotton Mill conversion was a huge undertaking completed in 3 phases spanning 18 months. The complex boasted six buildings which ring the block and enclose a ½-acre interior courtyard. The development group wanted to appeal to the young, urban crowd. Unit size, amenities, and security were the most important elements driving design. As project manager Tom Crumley said, "the development program was driven by a few major factors: the target market, existing windows, internal columns, building depth, and life safety." According to Crumley, 75% or more of the internal layout and building program was dictated by these factors. Units were packed into the buildings around the existing windows. With so

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<sup>36</sup> Information summarized from: <http://www.uno.edu/~cmatthew/home.htm>; The Greater New Orleans Archeological Program

<sup>37</sup> Information summarized from: [www.nationaltrust.org](http://www.nationaltrust.org), "New Orleans Developer Wins National Preservation Award For Saving Historic Buildings, Helping Revitalize Downtowns," Washington, D.C., October 7, 1999

<sup>38</sup> "Site History" information summarized from project documents provided by Historic Restorations, Inc., interviews conducted with project staff, and information originally printed at [www.hrihci.com](http://www.hrihci.com).



many units, HRI wanted to offer a variety of price points, floor plans, and looks. They targeted young people who appreciated the unique aspects of this historic property in an urban neighborhood.

“The original buildings were constructed in a traditional manner, with load bearing brick exterior walls and a heavy timber system of interior columns and beams. Huge double-hung cypress windows, five feet wide by 12 feet high, rhythmically punctuated the building skin.”<sup>39</sup> According to Crumley, the structure was generally in good condition, both structurally and aesthetically.

First, selective demolition was done to open up the interior courtyard and bring light to the interior courtyard facades. This 25,000 square foot open space now features a pool and several intimate courtyard spaces created by retaining part of the original brick walls. Rather than haphazardly gut the place, HRI worked with existing historic elements and went to great lengths to preserve the red brick interior walls, existing faded paint, and other elements attractive to their potential tenants. Renovation included cleaning and repairing the mill’s extensive brickwork. All walls were cleaned, removing failing paint and debris. Salvageable, old paint was kept to preserve the aesthetic condition but had to be encapsulated due to environmental concerns. Restoring the original windows was the largest unforeseen expense. The NPS would not allow replacements and to make the originals work every window in the building was removed, stripped, repaired, and repainted according to Crumley.

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<sup>39</sup> Steven Fader, *Density By Design, New Directions In Residential Development* (ULI, 2000), p. 114

By demonstrating economic hardship, HRI was granted permission by the NPS to add 17 penthouses on top of the existing structure. Structural capacity allowed for construction on the roof without upgrading its foundations, but localized reinforcement of columns and beams had to be added. The bigger issue was design and how to integrate the new construction with the old. A brick façade was not allowed because the NPS did not want the new construction to imitate the original structure. Aluminum panel construction was selected.<sup>40</sup>

Completed, the project now features 286 luxury rental lofts and condos and 17 for-sale condominium penthouse units built atop the four main structures on site. More than 30 different unit plans were required to renovate 6 buildings, each with their own floor plate. About 65% of the 286 units are one bedroom with 675 square feet; 25% are two bedrooms with 1,000 square feet; and 10% are penthouses. Most have 12-foot-high ceilings, exposed columns, beams, brick, tie-rods, and other elements for both economy and visual interest. Some interior partitions were built only eight feet high to open up the interiors. Most kitchens are open to adjacent space and all feature appliances, two phone lines, standard cable, and internet access. Project amenities include a pool, courtyard, game room, on-site security, and a fitness center. The penthouse condos average 1,600 square feet and are single-loaded so they have panoramic views in two directions. These units have 20-foot high ceilings, hardwood floors, and granite counter tops.

Several structures that contributed to the mill's historic identity were retained, including a water tower and bricked up clock tower. HRI commissioned local artists to create interior

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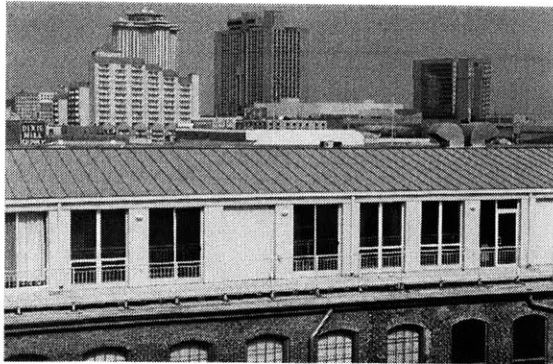
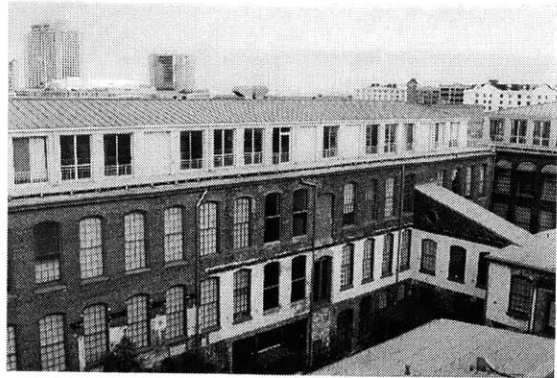
<sup>40</sup> Summarized from article printed by: Steven Fader, *Density By Design, New Directions In Residential Development* (ULI, 2000), p. 117

pieces made of artifacts found during demolition. According to Crumley, this is his favorite part of the project because the pieces are now featured on the interior. According to him, “The art has been a great marketing tool and really catches the attention of potential tenants.”<sup>41</sup>

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<sup>41</sup> “Development Program” information summarized from project documents provided by Historic Restorations, Inc., interviews conducted with project staff, and information found at [www.hrihci.com](http://www.hrihci.com).

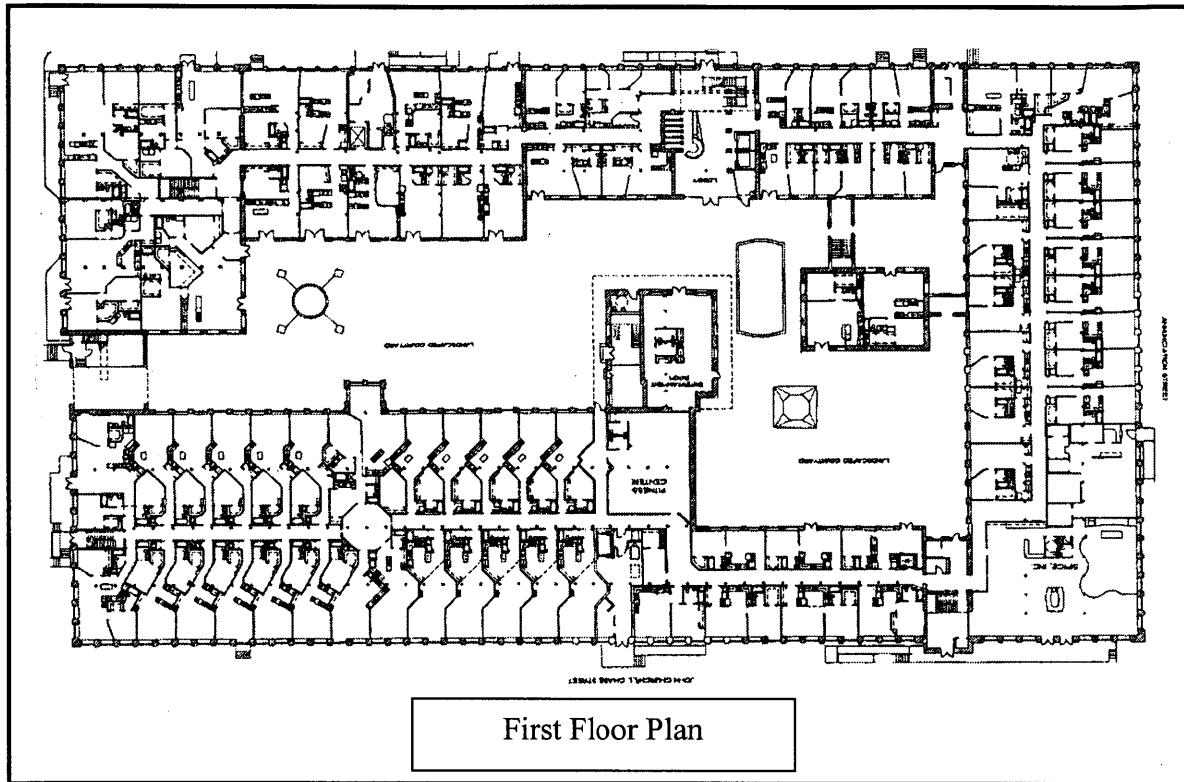
d. Project Photos



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<sup>42</sup> "Project Photos" provided by Historic Restoration, Inc.

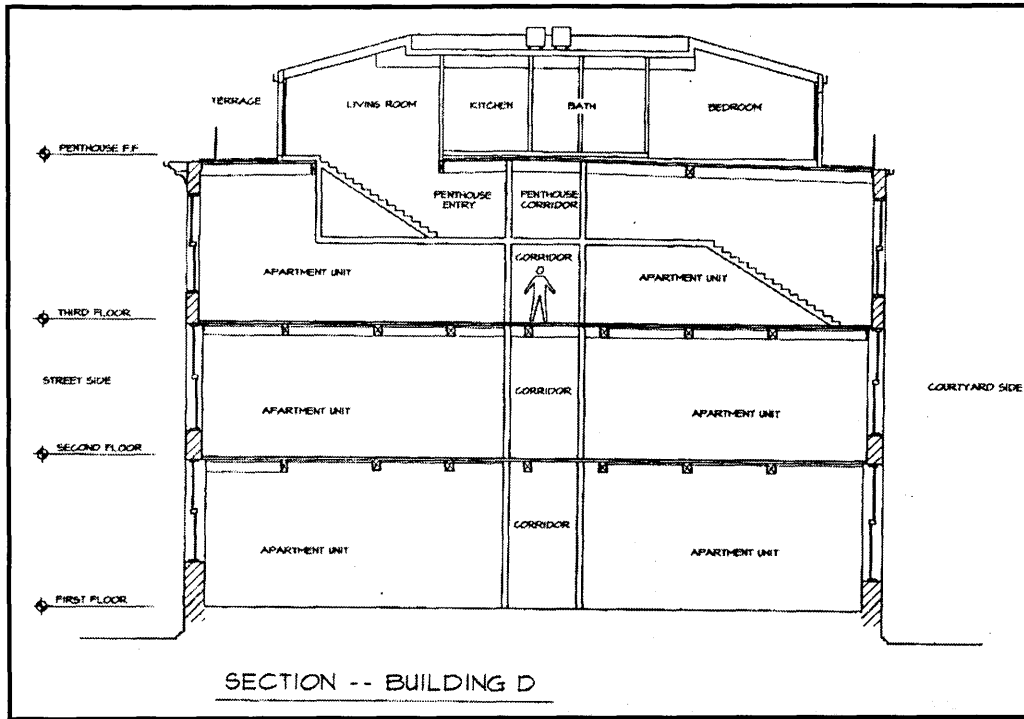
e. Building Floor Plan



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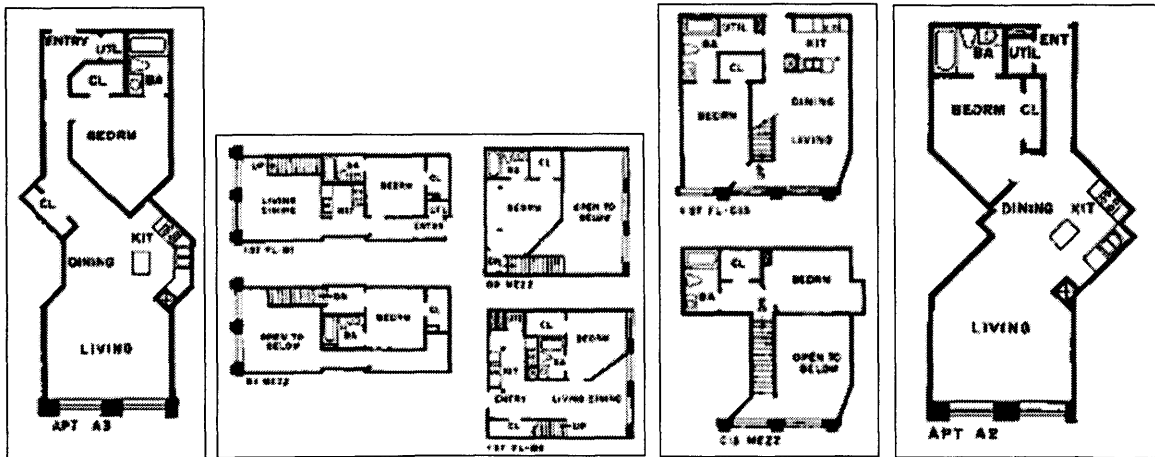
<sup>43</sup> "Building Floor Plan" originally printed by: Steven Fader, *Density By Design, New Directions In Residential Development* (ULI, 2000), p. 112

f. Building Section



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g. Unit Floor Plans



45

<sup>44</sup> "Building Section" originally printed by: Steven Fader, *Density By Design, New Directions In Residential Development* (ULI, 2000), p. 112

<sup>45</sup> "Unit Plans" reproduced from [www.hrihci.com](http://www.hrihci.com).

#### h. Deal Structure and Financial Analysis

The Cotton Mill was renovated by a partnership, with HRI as the general partner and AmerUs Mutual Life Insurance Company as the limited, tax-credit partner. AmerUs provided \$6.5 million in equity through the purchase of the project's historic tax credits as well the tax credits generated from the donation of a preservation easement for the Cotton Mill's façade. HRI provided \$3 million in equity financing. The rest of the project's \$32.2 million cost was financed through a first mortgage insured through HUD's 221(d)4 loan program and sold to a pension fund.

Leasing of the units proceeded at twice the expected rate. 95% occupancy was reached in 12 months. Further, original rents exceeded the project's pro forma expectations by over 7%. Condominium sales generally met pro forma expectations but proceeded less rapidly. Initial sales generated 2 closings per month and all units are owner occupied at present. Original sales prices exceeded budgeted prices by approximately 10%.<sup>46</sup>

To date, HRI and AmerUs have achieved favorable returns. It's difficult to calculate HRI's total return because they played a variety of roles in this project's development. The company provides a variety of in-house services operated as separate companies but all owned by HRI. As Tom Crumley explained, HRI acted as the developer, architect, owner, property manager, and general contractor. According to Crumley, "HRI lost their shirt on the construction side due to extensive overruns. As architect, we did well. The development fee got eaten up by cost overruns but as owners, the cash flow has been okay." Stipulations by the NPS required the building remain as rental units for 5 years to remain eligible for tax

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<sup>46</sup> Steven Fader, *Density By Design, New Directions In Residential Development* (ULI, 2000), p. 117

credits. That restriction expires this year (2003) and HRI is now considering condominiumizing each unit and selling them at market rate. There are prepayment penalties associated with paying off the existing debt but cash flow stipulations in the partnership makes a second condo conversion more profitable for HRI.

i. Unit Information

Type	Number	Square Footage	Unit Rental/Sales Price Range	Per SF Rental/Sales Price Range
Efficiency	27	640	\$722	\$1.12
1 Bedroom	162	580-1,515	\$655-\$1,712	\$1.12-\$1.13
2 Bedroom	66	984	\$1,112	\$1.13
3 Bedroom	14	1,551	\$1,753	\$1.13
Penthouse	<u>17</u>	1,545	\$235,000-\$384,250	\$152-\$248
<i>Total</i>	<b>286</b>			

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j. Development Costs

<b>Cottonmill Lofts</b>				
	Type	Total	Per Unit	Per GSF
<i>Units</i>	Site Acquisition	\$3,512,695	\$13,058	\$11
<i>269</i>	Construction Costs	\$20,884,367	\$77,637	\$65
<i>GSF</i>	Soft Costs	\$11,403,888	\$42,394	\$35
<i>323,288</i>	Total Development Costs	\$35,800,950	\$133,089	\$111

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k. Conclusions

This project has restored a building of little economic use that was contributing to the disintegration of its inner-city neighborhood. Renovated, it stands as it once did, and has contributed to vitalizing the Warehouse District of New Orleans. The project has been particularly appealing to young residents and has brought many of them to this area which was previously overlooked. There is no better indication of a successful project than positively infusing vitality to an area by changing its image within a community.

<sup>47</sup> "Unit Information" provided by Historic Restoration, Inc.

<sup>48</sup> "Development Costs" Provided by Historic Restoration, Inc.



The scale of this renovation can not be overlooked. The project included 6 original buildings of varying dimensions, heights, and structural condition. Efficiently using the space in each building was an overwhelming challenge and it is evident that the existing structures dictated the resulting converted unit types, configurations, and floor plans. The previous floor plan illustrates the different unit types. The buildings feature double loaded units with a dividing corridor almost throughout. The units however, are quite varied. Some are typical of traditional lofts; single room open floor plans. This unit type is typical of the buildings that are too deep to accommodate traditional apartment or urban condominium floor plans. These units run vertical to the building exterior. Other units are more typical of urban condo spaces. These units are bigger and have partitioned spaces. However, some of these units feature interior rooms that have no exterior windows. This is an unappealing situation for most residents, but in this case HRI decided it was the best way to create a space more typical of an urban condo. What these varied unit configurations indicate is that the existing building dimension dictated the types of units in the Cotton Mill project. This project features many unconventional units forced by the existing building footprint.

Construction proved to be the biggest challenge to redevelopment. Cost overruns ate up most of the development fee. HRI grossly underestimated costs associated with environmental clean-up, demolition, and repairing the windows. Crumley noted that they should have stripped the roof and started over but they opted to repair it. Roof leaks have plagued the building since completion and have been very costly.

Crumley assures me that the Cotton Mill project was a success from HRI's standpoint. According to Crumley, "If HRI was a public company, shareholders might not think so but we (HRI) aren't." As noted previously, HRI performed a number of roles in this project. The project cash flows have exceeded all projections and to date, have provided adequate returns. The building appears destined for a second conversion to for-sale condos. Crumley indicated that if the conversion is completed and the units sell as expected, HRI will do very well.

Financial returns aside, the project has been deemed a success on many fronts. The press covered the project extensively because the project won many national awards. It put HRI in the spot light and dramatically increased their credibility as developers with a historic restoration focus. Asked if HRI would do it again if they had the chance, Crumley said, "An emphatic yes."

### iii. Kennedy Biscuit Lofts: Cambridge, Massachusetts

#### a. Project Overview

Cambridge and greater Boston, like many of America's older cities, offer a special place to live and work. One of the reasons for this special status is that these areas are rich in history and historical architecture. However, Boston and surrounding suburbs boast some the highest housing costs in the Nation. Concerned with the lack of affordable housing and aware of the historical context of the area, Cambridge has recognized that existing buildings can be effectively converted into alternative uses such as housing.

Conveniently located between MIT and Harvard University, The Kennedy Biscuit Lofts is a part of University Park at MIT, a 27-acre mixed-use community. The University Park now includes research and development, office space, a hotel, retail space, and housing. Originally built in the late 1800's, MIT acquired the Kennedy Bakery building in 1979 as part of a large land assembly adjacent to their campus. By virtue of the building's unique architectural and economic contributions to the City of Cambridge, it was listed on the National Register of Historic Places. Renovation was completed in 1990 and offered much needed affordable housing. The original structure along with modest new construction offers 142 rental apartments serving low-income, moderate-income, and market-rate households.

MIT chose Forest City Development (FCD) to oversee development of University Park. FCD is a national, full service real estate firm which has completed mixed-use developments throughout the country. In turn, FCD partnered with Keen Development Corporation (KDC) to complete the project. KDC is a Cambridge firm which specializes in adaptive re-use of

historic properties for affordable housing. The firm is also known for innovative use of government assistance programs. Their experience and knowledge made them the perfect partner.

The Kennedy Biscuit Lofts was the first housing development within University Park at MIT. Today, it stands just as it did and is home to many families living and working in the Boston area. The success of this historic renovation is evidenced by the leasing of over 70% of the apartments within the first two months. It is currently 100% occupied.<sup>49</sup>

#### b. Site History

The Kennedy Biscuit Lofts, originally known as the F.A. Kennedy Steam Bakery, was built in 1875 by Frank A. Kennedy in the Cambridge industrial district. The five story brick bakery expanded the Kennedy family's 70 year old cracker baking business and contributed to the economic well-being of the community by employing up to 650 local workers. Given its rich history, the building was listed in the National Register of Historic Places just after renovation was completed.

The bakery created many varieties of crackers and cookies which were sold to domestic and international markets. One such product resulted from the invention of a new machine that extruded cookie dough; this extruded dough was then filled with one of the Kennedy brand of fig preserves. Debating on a name for this new product, the company wanted to include the word "fig" and the name of a nearby town. The story has it that the operator of the extruding

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<sup>49</sup> "Project Overview" information summarized from project documents provided by Keen Development Corporation and interviews conducted with project staff.

machine suggested his home town of Newton, Massachusetts and thus the “Fig Newton” was born. This still popular snack celebrated its 100<sup>th</sup> birthday in 1991.

Several brick additions were added to the bakery in the late 1800’s to accommodate the company’s continuing growth. In 1890, the company was acquired by the New York Biscuit Company which later became the National Biscuit Company (Nabisco). Frank Kennedy was elected a director of the new conglomerate and served until his death. Nabisco continued its operation at this site until after World War II.

The Fenton Shoe Company occupied the building from 1952 to the 1986 after Nabisco vacated. MIT acquired the property in 1979 as part of a large land assembly. In 1983, MIT chose FCD to develop a 27 acre mixed-use park known as University Park at MIT. In turn, FCD invited KDC to be managing partner for the renovation of the Kennedy Biscuit Lofts.<sup>50</sup>

### c. Development Program

The development team set out to maximize the existing building’s economic potential, retain and enhance the architectural integrity, and create a project compatible with surrounding uses while being mindful of MIT’s long-term plans for the larger master-plan. In short, renovation of this landmark building did not occur without many challenges.

Extensive architectural, engineering, economic, and market analysis was completed over several months to determine the final development program. The physical building was

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<sup>50</sup> “Site History” information summarized from project documents provided by Keen Development Corporation and interviews conducted with project staff.

considered first. The original structure featured 25-foot bays, heavy floor loading capacity, potential for 120-foot deep floors (with infill of an adjacent building), existing 80-foot depth from the windows, and adequate floor-to-floor heights. These physical dimensions indicated the building could be adapted for a range of office, research and development, laboratory, retail, or residential uses. Further, its location in Cambridge would also support a number of uses. A firm was hired to conduct feasibility analysis for multiple uses before a final development program was determined.

A residential development program was selected to gain maximum support among diverse local community groups and interests. This use was also compatible with surrounding uses and enhanced the future development potential of an adjacent MIT site. It was a prerequisite of MIT that the property not be a condo project due to stipulations in a current ground lease. Not surprisingly, a rental residential program was not determined to be the most economical. In fact, it was determined early on that the economic feasibility of a rental development would be hard to achieve. After much consideration, the development team determined they could make the rental conversion project economically viable including mandated low- and moderate-income units by using cost effective design, tight control of project costs, state and local subsidies, and an equity syndication of historic and low income tax credits.

The location supported the residential use with views of the Boston skyline and Charles River. Its visibility and distinctive architectural design and historical appeal gave the building a landmark status within the community. It was thought that this intangible characteristic would also contribute to the residential appeal and its success as housing. The property boasts

pedestrian access to the riverbank path system, vehicular access to Memorial Drive, and proximity to Boston and Cambridge.

Structurally, it was determined that the large east, south, and west facing windows, high ceilings, 25-foot bay spacing, and 80-foot building depth worked reasonably well for residential use. Completed, the 240,000 square foot building has been renovated into 142 mixed-income rental apartments serving the needs of low-income (25%), moderate-income (20%), and market-rate (55%) households. The building is comprised of one, two, and three bedroom apartments including loft-style spaces to accommodate live/work space for artists. Most of the three bedrooms are duplexes designed to serve larger households and have private entries from a landscaped courtyard; a number of two bedroom duplexes also have separate entries. Eight apartments are specially equipped for wheelchair accessibility.

Special care was given throughout the restoration to incorporate the history and details of the building. The exterior brick work of the building was carefully cleaned and repointed to restore its original integrity. Because the building was made up of several additions built over time, numerous cleaning techniques, mortar colors, and mortar types had to be applied. Original architectural details including dated brick walls, columns, and beams were incorporated wherever possible.

The existing windows were in bad shape. With extensive research, custom wood sash windows with true divided lights and matching profiles were designed. The replacement windows are a dead on match to the original windows from the exterior while providing a

mahogany finish and integral storm on the interior. Two alterations were made to the structure. The east facade was a blank wall exposed by the early demolition of an adjacent structure. The facade was fenestrated to create apartments in this wing, creating a contemporary interpretation of the mill design. The other alteration was a two story addition at the courtyard. This construction was set back from the original facade and was also designed as an interpretation.

The public corridors are wide and gracious, with two supporting columns and the structural beams exposed in the main hall to express the structural system. People often comment on the spacious hallways because they are unique and give the feel of a museum. The wide corridors resulted from building out the most logical units depths. A more traditional corridor width would have left units unusually deep and potentially void of natural light from exterior windows. Landscaped grounds, street lighting, and wrought-iron fencing was designed to complement the building and provide a residential scale and quality. The most unique reminder of the Bakery's history is a huge brick oven which is prominently featured as part of the first floor corridor design. The painted surface of this oven was stripped of paint to return the brickwork to its original state. In addition, two apartments have brick "oven rooms."

Other building amenities include cable television hook-ups, state of the art security and safety systems, individually controlled heat and air conditioning, community room, central laundry, handicap accessibility, and parking within the University Park.

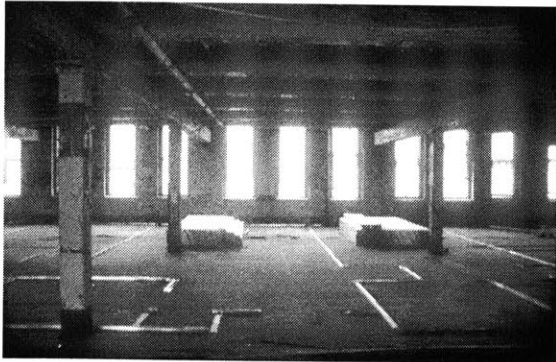


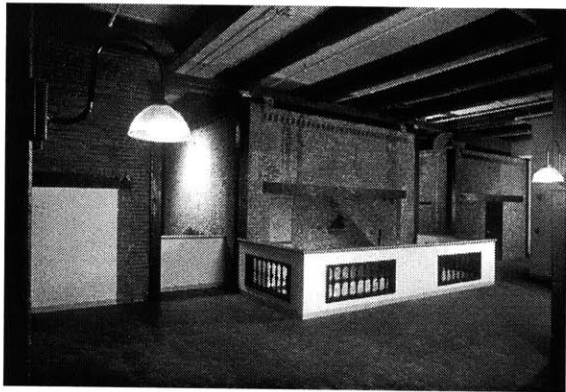
Marketing and rent-up began in November of 1989 and the first new residents moved in on February 1, 1990.<sup>51</sup>

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<sup>51</sup> "Development Program" information summarized from project documents provided by Keen Development Corporation and interviews conducted with project staff.

d. Project Photos

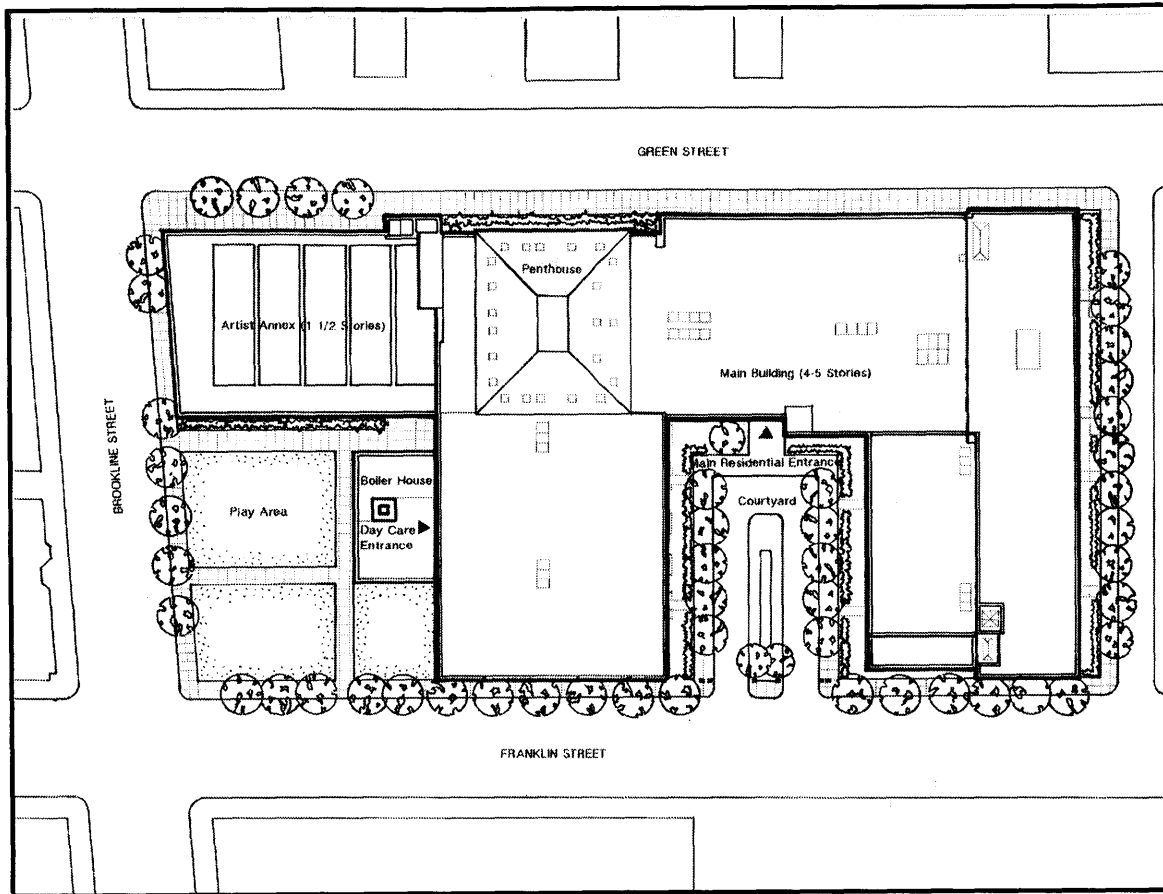




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<sup>52</sup> "Project Photos" taken by Brian Smith; provided by Keen Development Corporation.

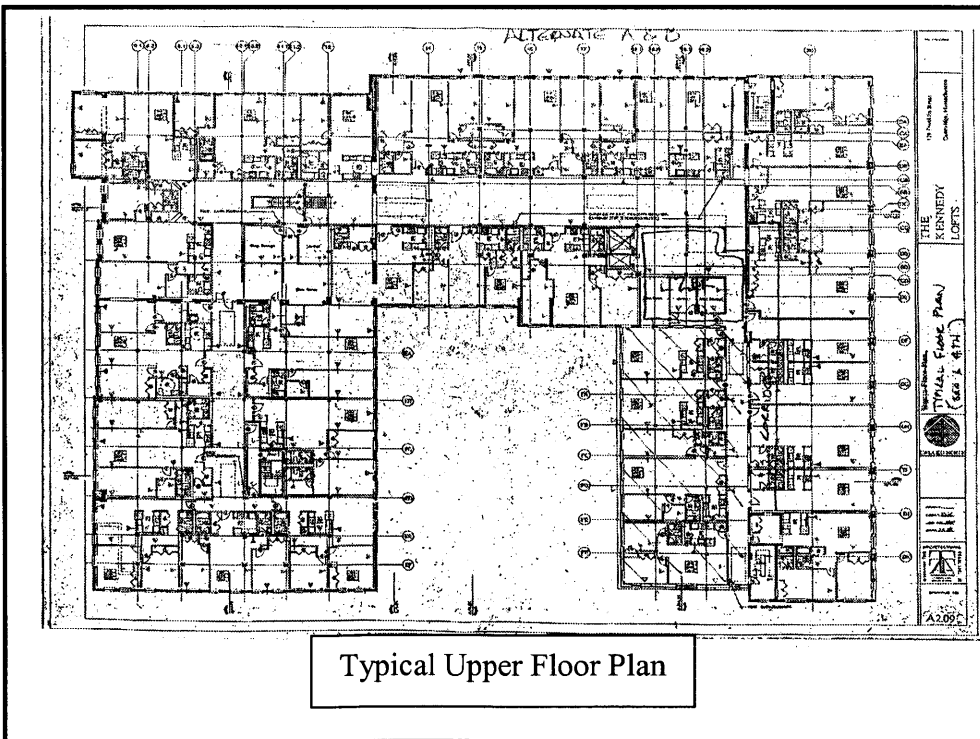
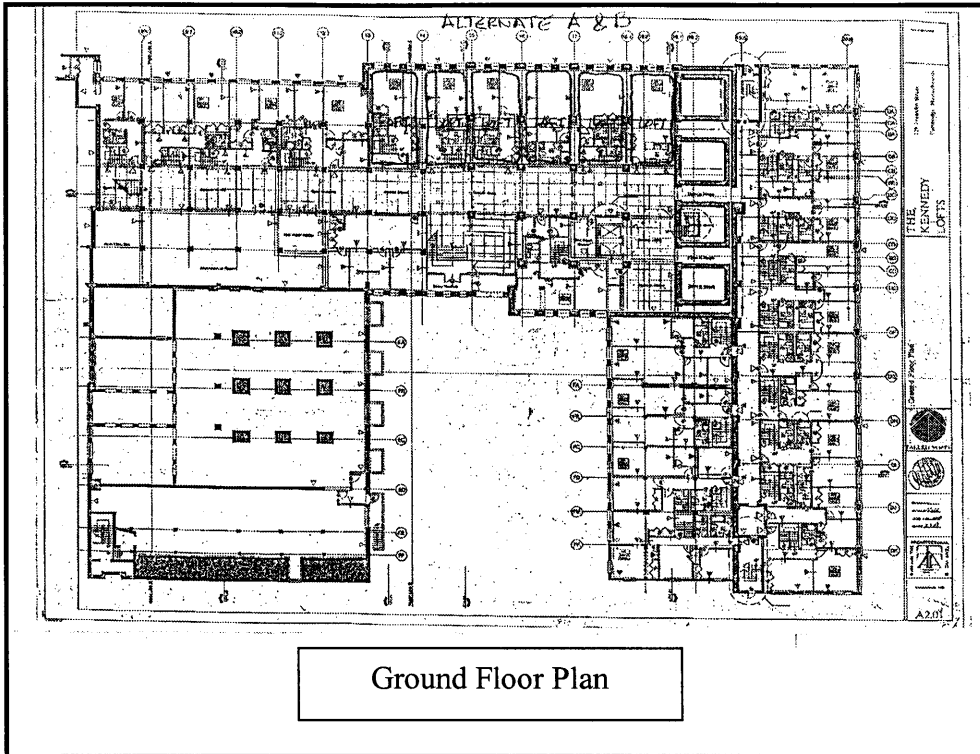
e. Site Plan



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<sup>53</sup> "Site Plan" provided by Keen Development Corporation.

f. Building Floor Plan



<sup>54</sup> "Building Plans" provided by Keen Development Corporation.

g. Deal Structure and Financial Analysis

A limited partnership was organized in 1989 in connection with the development of Kennedy Biscuit Lofts. The partnership included an affiliate of KDC and FCE. Construction was funded with various sources of public and private financing.

The project was eligible for low income housing tax credits over a 10 year period which commenced in 1990 and was calculated at 4% of the acquisition cost of the building and certain expenditures incurred in connection with the building rehabilitation. This credit was approximately \$ 159,000 annually. Provisions of this credit restrict occupancy to qualified low- income tenants for a 15 year period. In addition, the project utilized a historic tax credit in 1989, amounting to 20% of certain qualified construction and rehabilitation expenditures. Provisions of this credit stipulated that the building remain in service for 5 years and restricted any sale of the property over the same period. Units within the building had to conform to a traditional apartment layout, including separate bedrooms with windows. Through syndication, the partnership received approximately \$4,860,000, relinquishing a 97% interest in project profits, losses, tax credits, and cash flows from operations to one limited partner investor.

Additional construction and permanent financing were provided by the Massachusetts Housing Finance Agency (MHFA). At completion, \$17,075,000 had been advanced. Interest only was payable monthly during construction at an interest rate of 8.4% plus 0.5% MHFA fee. Closing of the permanent loan occurred in 1991. Secured by the property, the permanent

mortgage accrued interest at the same rate as above. Amortization began in September 1991, with monthly payments of \$131,194 for principal and interest due through May 1, 2021.

In addition to the primary financing from MHFA, the State Housing Assistance for Rental Program (SHARP) committed subsidy funds to the Partnership. This program provides housing subsidy funds in order to make units available to low- and moderate-income tenants. The SHARP subsidy in the first full year of operation (1990) was \$376,318 and declined over a 10-year term.

During 1993 through 1995, the project experienced financial shortfalls as a result of the down-turn in the economy and local residential rental markets. As a result, the projected increases in market rents failed to materialize. The partnership applied to MHFA for a Type I/Operating Deficit Loan restructuring. In connection with the workout, the property began receiving Operating Deficit Loans (ODL).

In 1999, the property was refinanced with bonds issued under the aegis of the Cambridge Housing Authority. The MHFA debt, SHARP, and ODL loans and accrued interest were repaid. As part of this transaction, FCE purchased the general partnership share from KDC for approximately \$650,000.

Like many complex re-use projects, this renovation included several groups and partnerships and utilized traditional and non-traditional sources of funds. Development returns and the success of the project can be analyzed from a number of perspectives. Here, I'm considering the

project from the managing partner perspective of KDC. KDC understands complex renovation projects and in this case, primarily focused on a fee-based financial upside. Other important elements included the benefits of preserving a historic structure and providing much needed affordable units. As one employee put it, "KDC likes complex projects because they are challenging. If it's not complex, we don't do it." KDC did not put up any equity at the outset. Over the course of construction, they received approximately \$2,000,000 in fees. Throughout operations between 1990 and 1999, they funded deficits out of pocket totaling roughly \$1,000,000. As a 50% member of the development partnership, KDC was obligated to fund a portion of operating deficits throughout operations. In 1999, they received \$650,000 as part of a buyout of their partnership interest. At present, KDC retains a .1% interest in the ownership entity of Kennedy Biscuit Lofts. Considering KDC's cash flows, their return on equity or out of pocket expenses was 244% over 10 years. Essentially, KDC funded a total of \$1,086,994 and received a total of \$2,650,000 over that period. This appears very favorable. However, KDC had to fund all administrative and company operational expenses out of this return. Further, this return is calculated over a lengthy (10 years) time and the total risk is hard to quantify. The development fee received at completion was not as risky. KDC understood the inherent construction risk and was comfortable with completion, guaranteeing the fee. However, the resulting deficits after completion were hard to predict at the time of construction. Further, the partnership buyout occurring 1999 was totally unpredictable at the beginning of the project. In short, the total risk associated with this return was substantial. Calculating the NPV using a 30% discount rate, reflective of the risk, was \$960,659. An operating pro-forma follows showing specific operating cash flow detail.



Kennedy Biscuit Lofts Historical Operations									
	Actual 1990	Actual 1991	Actual 1992	Actual 1993	Actual 1994	Actual 1995	Actual 1996	Actual 1997	Actual 1998
Rental Revenues:									
Residential Income	1,658,749	1,725,932	1,761,672	1,808,040	1,861,235	1,931,565	2,000,851	2,029,266	2,081,149
Vacancy	-354,303	-67,135	-50,196	-39,398	-58,520	-29,296	-45,324	-61,270	-21,112
Commercial Income	0	27,500	82,810	93,150	94,809	92,636	94,771	79,127	90,728
Commercial Guarantees	0	0	0	0	0	0	21,414	24,553	12,952
Launchy/Interest/Misc.	31,849	36,996	21,164	23,170	35,808	31,001	32,280	23,281	29,000
Repl. Reserve Reimbursements	0	0	10,768	0	0	100,851	93,357	0	0
Operating Escrow Reimbursements	0	0	0	0	0	0	36,937	0	0
	-	-	-	-	-	-	-	-	-
Total Effective Income	\$1,336,295	\$1,723,293'	\$1,826,218	\$1,884,962	\$1,933,332	\$2,126,757	\$2,234,286	\$2,094,957	\$2,192,717
Operating EXPenSes:									
Administrative	177,125	224,344	241,142	181,206	174,851	188,861	187,754	196,979	346,312
Maintenance	212,851	218,570	236,620	227,647	227,036	235,013	356,210	275,806	239,156
Security	0	0	1,143	1,172	3,775	7,762	13,391	14,062	13,405
Utilities	68,891	73,235	75,197	83,440	108,730	105,801	109,997	145,704	119,837
Insurance	25,092	36,952	45,817	44,242	53,030	59,535	56,187	56,790	63,957
Real Estate Taxes	54,435	65,918	108,378	136,857	125,711	145,228	132,921	134,763	184,485
Capital Expenses	0	5,256	61,523	36,299	19,100	0	15,700	5,202	431,242
Replacement Reserves	0	9,762	39,050	42,304	31,536	67,322	42,305	35,796	32,542
Operating Escrow	0	0	0	0	0	31,682	0	0	0
	-	-	-	-	-	-	-	-	-
Total Operating Expenses	538,394	634,037	808,870	753,167	743,769	841,204	914,465	865,102	1,430,936
Net Operating Income	797,901	1,089,256	1,017,348	1,131,795	1,189,563	1,285,553	1,319,821	1,229,855	761,781
Financial EXPenSes:									
Debt Service	1,394,818	1,574,373	1,658,724	1,655,363	1,657,580	1,646,594	1,674,463	1,639,304	1,557,089
Less: SHARP Subsidy	-300,127	-407,674	-376,318	-376,318	-342,110	-273,000	-124,916	-92,750	-34,167
Less: ODL Subsidy	0	0	0	0	0	-146,636	-254,802	-200,790	0
	-	-	-	-	-	-	-	-	-
Total Financial Expenses	1,094,691	1,166,699	1,282,406	1,279,045	1,315,470	1,226,958	1,294,745	1,345,764	1,522,922
	-	-	-	-	-	-	-	-	-
Cash Flow (Deficit)	-296,790	-77,443	-265,058	-147,250	-125,907	58,595	25,076	-115,909	-761,141
Developer Contributions	346,161	0	170,459	0	0	201,480	0	110,000	258,894
Cash Flow (Deficit) after Developer Contributions	49,371	-77,443	-94,599	-147,250	-125,907	260,075	25,076	-5,909	-502,247
	-	-	-	-	-	-	-	-	-
Cum. Cash Flow (Deficit) after Developer Contributions	49,371	-28,072	-122,671	-269,921	-395,828	-135,753	-110,677	-116,586	-618,833

### Kennedy Biscuit Lofts Operating Pro-Forma

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#### h. Unit Information

Type	Number	Square Footage	Unit Rental Range	Per SF Rental Range
Loft/Studio	25	745-1,040	\$675-\$1,000	\$.90-\$.96
1 Bedroom	29	700-1,235	\$775-\$1,000	\$.80-\$1.10
2 Bedroom	74	1,035-1,780	\$1,050-\$1,300	\$.73-\$1.01
3 Bedroom	14	1,295-2,065	\$1,600-\$1,800	\$.87-\$1.23
<i>Total</i>	142			

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<sup>55</sup> Operational pro forma provided by Keen Development Corporation.

<sup>56</sup> "Unit Information" provided by Keen Development Corporation.

i. Development Costs

<b>Kennedy Lofts</b>				
	<b>Type</b>	<b>Total</b>	<b>Per Unit</b>	<b>Per GSF</b>
<i>Units</i>	Site Acquisition	\$1,000,000	\$7,042	\$4
<i>142</i>	Construction Costs	\$13,979,397	\$98,446	\$54
<i>GSF</i>	Soft Costs	\$8,384,506	\$59,046	\$32
<i>260,000</i>	Total Development Costs	\$22,363,903	\$157,492	\$86

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j. Conclusions

The success of this conversion is in the eyes of the beholder. In short, it depends who you ask. The building stands fully leased beautifully renovated. It provides a tremendous connection to the past and much needed affordable and market-rate housing units. From this perspective, it is truly a remarkable development. No one will disagree.

The conversion design and floor plan layout resulted from imposed stipulations and the existing footprint. Although the building is now “loft” units, few units are lofts in the traditional sense defined earlier. The traditional layout was mandated to ensure new units suitable to low-income families. As a result, many of the units include partitions to create different rooms or multiple habitable spaces. Each room however has a window to the exterior. As a result, the building now features an oversized corridors due to general inefficiencies associated with the traditional design stipulations in a building footprint more suitable for traditional loft style units. Units could have been designed deeper taking up some of the width out of the corridors, but the result would have been dim space towards the rear. Instead, the corridors were left wider than normal and the units are more similar to traditional apartment depths.

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<sup>57</sup> “Development Costs” provided by Keen Development Corporation.

Financially, it's tough to argue this project made economical sense. Using a multitude of non-traditional resources and financial partners, the project looked to be profitable in the long run by using subsidies. Unanticipated events after completion contributed to the financial losses and ultimately lead to a complex workout. A weak rental market experienced in the mid 1990's caused realized rents to fall and a major flood caused extensive damage which funds from the developer's pocket had to be used to cover deficits. To date, total project returns have yet to be realized.

If you ask Jeffery Young of KDC, he will tell you it was a dramatic success. Interestingly, KDC approached the project much like they approach other costly renovations and focused on fee collection throughout the project. By keeping overhead down and managing risk, KDC was able to complete the project and net approximately \$2.6 M. As Mr. Young said, "we approach projects that are interesting and complex. We do not calculate IRR's like they teach you in rigorous real estate programs because there are too many intangible returns we consider." In short, KDC takes pride in challenging projects that provide affordable units to the community. Using this approach, KDC was able to make an acceptable return and completed a successful historic renovation. FCE currently owns 99.9% of the partnership and according to Mr. Young are "happy with the building's performance." They have dramatically increased rents and the building is sufficiently cash flowing.

## **XII. Thesis Conclusions**

The case studies included a range of conversions varying in size and location. Generally, the developers of each of these projects had the same objectives. Each set out to renovate an

existing building through conversion and make a profit or a fee. However, their approach varied significantly and there are insights from these projects that can be used to evaluate similar conversions.

Spatial re-use feasibility is a driving factor in design and varied in the case studies considered. The developers in each project first identified demand from a specific target market. In the end, each project created new unit types primarily dictated by the existing building footprint. Evaluating an existing building's capacity to support dwelling units of a certain type, quality, and layout appears to be the most important step to evaluating potential conversion projects. It's important to know if a building can accommodate the type of units demanded or more specifically, the kind of units the developer wants to create. Generally, the case studies indicate that deep buildings with few windows are more suitable for traditional loft units featuring a single habitable space with an open floor plan. These buildings are more appealing conversion projects in areas boasting a large young professional market. Deep buildings are inefficient conversion candidates for more traditional apartment configurations. For a traditional apartment layout, the perfect building is 60 feet deep. When a building is deeper than this, the loft unit works better because they are single habitable spaces. This won't work for traditional layouts because windows and light is not accessible to partitioned rooms. By looking at a building footprint, you can usually determine very quickly the number of units and type that will work by considering the building depth.

Predicting project costs can also be a source of uncertainty when evaluating a conversion project. Conversion projects are typically more capital intensive than traditional new

developments and the risk in construction is substantially higher. This is due to the 'unknowns' associated with existing buildings. Staff from the case study projects universally agreed that the construction risk is hard to evaluate and particularly on larger projects. There are two ways to manage this risk which was evident from the case studies. Developers can try to put this risk on the general contractor by providing very detailed plans or spend more time and money up front evaluating the building's structure and environmental contaminants. Either approach cost more money up-front but can effectively manage the build out risk. Further, adequate contingencies should be accounted for in project costs. These case studies would indicate that a 10% contingency on soft costs and a 10% contingency on hard costs is adequate. Construction cost overruns were evident in the Kennedy Biscuit and Cotton Mill projects. Considering the dramatic differences among these projects in terms of size, the cost data is fairly similar, and particularly on a per unit basis. The Osage Lofts project cost \$150,000 per unit or \$170 per gross square foot. The Cotton Mill project cost \$133,000 per unit or \$111 per square foot. Kennedy Lofts cost \$157,000 per unit or \$86 per square foot. Total development costs of similar conversions can expect to spend between \$130,000 and \$160,000 or higher on a per unit basis, depending on underlying land values or local labor conditions.

Windows were an unmistakable issue in each project. Conversations with the developers of these projects kept coming back to this issue. In all three cases, windows were critical to the conversion feasibility and generally required substantial attention on the projects. This is particularly true of NPS certified rehabilitations. Having enough windows is critical but their shape and condition is just as important. In two of the three case studies, the developers spent

more than twice what they originally expected on the windows. Not surprisingly, these projects were certified rehabilitation projects.

The case studies indicate that there are a number of ways to approach financing these projects illustrated by the varying capital and deal structures. First, working with a registered historic landmark will dictate much of the project. Two of the projects considered are registered historic landmarks. In each case, historic tax credits were syndicated as part of the financing package. Tax credit syndications are effective at raising much needed capital but developers give up ownership of the project. In these cases, it appears that returns are frontloaded with fees rather than back loaded at an asset disposition. Kennedy Biscuit Lofts also utilized low-income tax credits among other subsidy programs aimed at making the project viable. The case studies indicate that the capital structure is generally dictated by the market and the cost of the conversion. Because conversions are more costly, developers generally have to look to non-traditional financing to make projects economical.

All of the case studies indicate that there is more than financial upside to these types of conversion projects. The developers of these projects were mindful of this and commented on it regularly during conversations. Accordingly, these projects were complex but rewarding. In general, they enjoyed the added challenges associated with these conversions.

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