EVALUATING ALTERNATIVE APPROACHES TO FINANCING MARKET RATE HOUSING: A SITE IN CENTRAL SQUARE, CAMBRIDGE

by

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Evaluating Alternative Approaches to Financing Market Rate Housing: A Site in Central Square, Cambridge

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ABSTRACT

This thesis analyzes the market, political and financial feasibility of constructing a multifamily rental housing project on a site in Central Square, Cambridge, Massachusetts. The site is presently owned by a local developer.

First, the author describes the site and demographic and housing characteristics of the surrounding neighborhoods. Second, the current demand in the Cambridge housing market is analyzed, and potential users and rent levels are established. Third, the author outlines the public approval process and those obstacles which must be overcome by the developer. Fourth, the financial feasibility of the project is analyzed. When the project is found to be economically infeasible with private financing, a range of public financing alternatives are identified and described. The financial returns to the developer are analyzed and compared to the limitations imposed on the project by these financing sources. The author concludes that the developer must utilize public financing to achieve financial feasibility.

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CHAPTER ONE

INTRODUCTION

The purpose of this thesis is to analyze the market, political and financial feasibility of constructing a multifamily rental housing project on a privately owned site in the Central Square neighborhood of Cambridge, Massachusetts. The owner of the site, a local developer, is confronted with numerous obstacles which makes development of this project particularly difficult. The thesis will identify these obstacles, as well as suggest strategies to overcome them.

Chapter One will describe the site, adjacent land uses and the demographic and housing charactersitics of the surrounding neighborhoods. In addition, preliminary architectural plans for the project will be outlined. Chapter Two will analyze the market potential for the project by first identifying the demand generated by a declining supply of privately-owned rental housing. Market comparables for the project will be described, as well as the perception of the site by local brokers.

Chapter Three will focus on the political feasibility of the project, specifically the response of local residents and the impact of rent control laws on long term projections of financial feasibility. Lastly, Chapter Four will analyze

the financial feasibility of the project. The risks and rewards of the project will be identified, utilizing conventional and participation financing. When the project is found to be economically infeasible with private financing, a range of public sector financing alternatives will be identified and described. The financial returns to the developer will be compared to the limitations imposed on the project by utilizing public sector financing. Chapter Five concludes by recommending that the developer undertake the project if he is willing to assume the risks inherent in the process of competing for scarce public finnacing.

EXISTING CONDITION OF SITE

The site of the proposed rental housing project is a 25,000 square foot parcel located in the Central Square neighborhood of Cambridge, Massachussetts. It is within one block of the intersection of Prospect Street and Massachussetts Avenue and is bounded by Prospect, Bishop Allen and Essex Streets.

The site is presently used as a parking lot for tenants of three office buildings located nearby. These office buildings contain apporximately 176,000 square feet and comprise the largest cluster of office buildings in Central Square. Additional parking for the office buildings is also provided on a lot located on the western edge of Prospect

Street (see Exhibit 1). These lots presently accomodate 300 cars. [1]

The cluster of office buildings and the two parking lots located on the east and west side of Prospect Street were recently purchased as a package by a local developer, Central Plaza Realty Trust (CPRT). The development plan of CPRT is to convert the parking lot located on the west side of Prospect Street into a three story garage which will provide covered parking for the tenants of the office buildings locates nearby. In order to ensure the economic feasibility of the garage, the developer also intends to construct a total of 80,000 square feet of office space on two floors above the garage. The construction of the garage would subsequently make the subject parcel, located directly adjacent to the garage on the east side of Prospect, available for development.

The developer is actively considering development of the site into rental housing or condominiums. The local government as well as community groups would like to see the site developed as housing. In exchange for providing rental housing which fulfills a community need, the developer would like to secure a zoning amendment for the parcel on the western side of Prospect in order to construct the proposed three story garage and two additional stories of office space. At the present time, a portion of the parcel on the western side of Prospect is located in a Residence C-1

Zoning District , which generally limits permitted uses to residential housing. If the municipality agrees to change the zoning designation from Residence C-1 to a Business B Designation, the developer can proceed with the proposed parking and office structure. The site of the proposed housing project is located in a Business A, Residence B and Business A-1 District. Residential housing is a permitted use in all three of those Districts.[2]

As percieved by the developer, the two projects are closely interrelated and, in all likelihood, will not proceed independently from one another.

SITE CONTEXT

Central Square is a retail and shopping area which provides services to adjacent residential communities as well as the student population of Harvard and MIT. As a result of the proximity of the site to Central Square, the surrounding land uses are predominately commercial in nature.

Prospect Street borders the eastern edge of the site and is heavily trafficked, as numerous trucks exit the Massachusetts Turnpike at the edge of the adjacent neighborhood, Cambridgeport, and travel down Prospect Street towards Somerville. Structures on Prospect Street within one block of the subject site include a Bread and Circus grocery

store; the offices of an architectural firm, ADD Inc.; and small, neighborhood-oriented commercial facilities. The southern edge of the site faces Bishop Allen Drive and the rear entrance to Woolworth's Department Store. The entrance appears to be used primarily for loading purposes and is poorly maintained. A cluster of townhouses is located at the intersection of Essex Street and Bishop Allen Drive, adjacent to the eastern edge of the site. These townhouses have been renovated into small offices and contain numerous not-for-profit organizations. The eastern edge of the site is bounded by Essex Street. The street is essentailly residential in character, and is dominated by two-and-three family houses. The backyards and rear entrances of these two-and-three family houses on Essex Street form the northern edge of the site. (see Exhibit 1.)

Although a physical inspection of the site indicates that its surroundings are predominately commercial in nature, there are several features which make the site appropiate for residential. It is within one block of an MTA station, which is presently being extensively renovated. The site is also within one block of numerous bus routes which travel to downtown Boston and Harvard Square. Shopping facilities such as grocery, drug and clothing stores are conveniently located in Central Square. In addition, the Square contains numerous inexpensive, ethnic restaurants which serve the students of MIT and Harvard.

DESCRIPTION OF NEIGHBORHOOD

The marketability of a rental or condominium project is, in large part, subject to the image of the surrounding neighborhoods. The common perception of Central Square is a neighborhood dominated by lower income persons and substandard housing. The task for the developer is to understand how this perception is formulated and whether the perception is an accurate reflection of the demographics of the Square and adjacent neighborhoods. A marketing strategy can subsequently be developed which acknowledges existing economic conditions while emphasizing those aspects of the neighborhood which appeal to upper-income groups.

As Exhibit 2 indicates, the site of the proposed housing project is surrounded by two neighborhoods defined by the Cambridge Planning Department as Neighborhood Four and Neighborhood Five. The site is actually located in Neighborhood Four, which is the eastern section of the area commonly known as Mid-Cambridge. The site is one block from Massachusetts Avenue, the nothern boundary of Neighborhood Five. That neighborhood is known to city residents as Cambridgeport.

Using data from the 1980 Census, the city has compiled a profile of the households residing in these two neighborhoods. In addition, the city has analyzed the existing housing stock. The demographic picture of these two

neighborhoods is outlined below.

Family and Income Characteristics

The following table summarizes the family and income characteristics of Neighborhoods Four and Five, as well as the city of Cambridge.

Table 1:Demographic Characteristics of Project Market Area

Characteristic	Area #4	Area #5	City
Number of Persons	6,532	8,670	95,322
Number of minorities as a % of pop.	50%	22%	18%
Percentage of persons under 15 years	22%	13%	13%
Percentage of persons over 65 years	9.6%	13%	11%
Median Family Income	$11,073	$15,474	
Percentage of Persons Below Poverty Level	27%	17%	11%
Percentage of Families headed by single women	46%	32%	24%
Average size of Families w/children under 18	3.21	3.07	3.03

Source: Cambridge Department of Housing and Community Development

As the demographics above clearly indicate, Neighborhood Four contains a greater number of minorities,

young persons and large families headed by single women than either Neighborhood Five or the city as a whole. As a result, the median family income of Neighborhood Four is significantly lower than the income level of Neighborhood Five or the city as a whole. In addition, the poverty rate of Neighborhood Four is 59% higher than the adjacent Neighborhood Five.

Housing Characteristics

The following chart summarizes the characteristics of the housing stock for these two neighborhoods, as well as for the city overall.

Table 2: Housing Characteristics of Project Market Area

CHARACTERISTIC	Area #4	Area #5	City
Number of Occupied Units	2,447	4,012	38,836
Percentage Owner Occupied	15%	19%	23%
Percentage Renter Occupied	85%	81%	77%
Percentage Constructed prior to 1940	81%	72%	68%
Percentage of Subsidized Units	20%	15%	11%

Source: Cambridge Department of Housing and Community Development

The percentage of owner occupied units in Neighborhood Four is only half of the city-wide average. In addition, the percentage of subsidized units is almost twice the overall rate for the city. Not suprisingly, these housing statistics mirror the family and income demographics described above. In summary, Neighborhood Four is poorer and more deteriorated than the majority of neighborhoods in the city.

DESCRIPTION OF PROPOSED PROJECT

A successful development plan for the site must acknowledge the social and physical profile of these two neighborhoods. The site is not buffered from the impact of these neighborhoods, particularly Neighborhood Four. The range of development alternatives must be narrowed, and the users who will feel comfortable with the social environment must be identified.

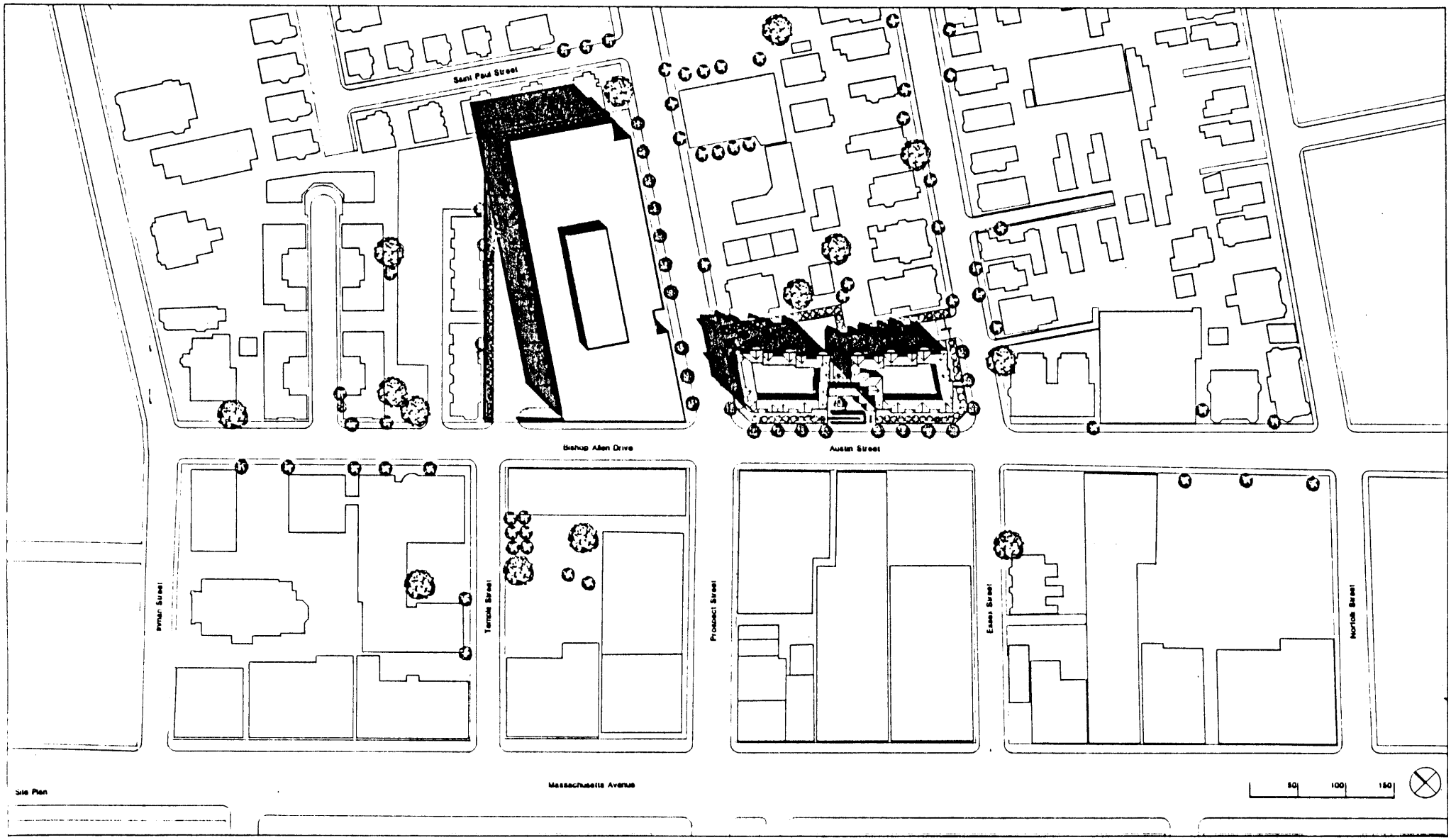
The developer has therefore concluded that a luxury rental or condominium project is not feasible, given the predominance of lower-income persons and older housing. In addition, the developer determined that the predominance of commercial uses on adjacent parcels and relatively small size of the parcel makes the alternative of townhouse developement unattractive.[3] The only residential alternative remaining is a multi-family, mid-rise rental or condominium project.

As a result, the developer retained an architectural firm, ADD, who has developed a preliminary design for a rental or condomimium project. The plan calls for the construction of two residential buildings joined by a courtyard. The building directly adjacent to Propect Street is five stories, and the building which borders on Essex Street is four stories. The gross square footage of the building, as presently designed, is 47,400 square feet. The exterior of the building will be fireproof brick construction and from a design perspective, will emulate the brick townhouses which face Essex Street to the east.[4]

The plan for the buildings has individual units laid out along a single corridor in each building, with elevators in both buildings. The buildings contain 36 two-bedroom units of approximately 905 square feet and nine one-bedroom units of approximately 660 square feet. The developer plans to create what is commomnly defined as a "b+" unit. Specifically, the units will contain wood floors, modern kitchens with a dishwasher, disposal and high-quality cabinets and access to balconies through a double glass door. The two- bedroom units will include two bathrooms. At the present time, the developer plans to meter all of the utilities individually to the tenants. Finally, the architect has also designed one level of parking underneath the building, which will be accessible by car from a six foot ramp and by elevator from the residential units. A

total of 45 parking spaces will be provided.

While the architect has developed preliminary plans, the developer has not determined whether the project should be developed for the rental or condominium market, or identified appropiate rent levels or sale prices. The next chapter will discuss current trends in the Cambridge housing market, as well identify an appropiate user and rent level for the project, as presently. Chapter Four will subsequently anaylze the economic feasibility of building a rental housing project on the subject site, given the recommended rent levels and cost of construction.



CENTRAL PLAZA III

CAMBRIDGE, MASSACHUSETTS | CENTRAL PLAZA REALTY TRUST OWNER | TOFIAS CORPORATE REAL ESTATE SERVICES DEVELOPER | ADD Inc. ARCHITECT | 18 JULY 1988

EXHIBIT ONE

Neighborhoods

CAMBRIDGE

Community Development Department 1976

EXHIBIT TWO

CHAPTER TWO

CURRENT TRENDS IN THE CAMBRIDGE HOUSING MARKET

In order to identify the appropiate rental or condominium market for the subject site, the overall trends in the Cambridge rental and homeownership markets must first be analyzed. The table below summarizes the changes that have occured in these markets between 1970 and 1980.

Table 3: Changes in the Cambridge Market 1970 to 1980

Housing Characteristics	1970	1980
Number of Occupied Units	36,411	38,836
Number of Privately Owned Renter-Occupied Units	27,143	25,484
Percentage Change from 1970 to 1980	(6%)	
Number of Subsidized Units	2278	4463
Percentage Change from 1970 to 1980	97%	
Number of Owner Occupied Units	6990	8889
Percentage Change from 1907 to 1980	27%	
Number of Conversions from Private Rental to Condominium	1983	
Number of Conversions as a Percentage of Private Rental Units	7.3%	

Source: Cambridge Department of Housing and Community Development

These figures indicate that the growth in the privately owned housing market has occured exclusively in the owner-occupied , as opposed to renter-occupied, sector. Although the number of occupied units increased by 7% during the 1970s, the number of privately owned rental units decreased by 6.1%. This decline can be attributed, in part, to the significant number of conversions during the decade. A total of 1983 units, or 7.3% of the existing rental units in 1970, were converted into condominiums.

As a result of the absolute decrease in the city's private rental stock, the vacancy rate has remained low throughout the 1970s. In 1970, the city's vacancy rate was equal to 3.3%. In 1980, the vacancy rate had risen to six percent. While a variety of factors have precipitated this increase, the existence of stringent rent control regulations during the decade has encouraged some landlords to keep their rental units off the market. In addition, a number of units for rent or sale were inaccurately priced for the market, and additional subsidized units were vacant while undergoing renovation.[5] In light of these factors, city officals revise the figure of 6% downward, and suggest that a vacancy rate of between 1.5 and 3 percent more accurately reflects the housing market.[6]

FACTORS AFFECTING MARKET TRENDS

A variety of factors have caused the decline in the number of privately owned rental units. From the perspective of local officals, the decline is attributable to the economic infeasibility of constructing new rental housing in a densely settled urban area with increasing land values such as Cambridge.[7] They suggest that the increase in rents have not kept pace with the increasing cost of residential construction. They also suggest that alternative development opportunities, such as conversion or construction of condominiums or office buildings, are more profitable and yield a higher return to the developer than rental housing. They point out that, in a market such as Cambridge, the tax advantages of homeownership, when combined with the potential of substantial appreciation, yield a much higher return to the purchaser than a "high-end" or luxury rental unit.

From the perspective of brokers, the decline in the number of rental units is, in part, attributable to the factors discussed above. However, they focus on the stringent rent control laws as the primary explanation for the decline in the number of renter-occupied housing units.[8] The city's Rent and Eviction Control Enabling Act of 1969 places strict limits on the rent levels, increases and the scope of improvements which can implemented by a

landlord. Out of a total of 25,484 privately-owner rental units, 58% or 15,000 units are under the jurisdiction of rent control.[9]

These brokers also point to the number of conversions which occured during the 1970s as evidence of the negative impact of rent control laws on the city's housing market. As was stated above, 7.3% of the privately owner rental units were converted to condominiums during the 1970s. As a result of the moratorium on conversions passed by the City Coucil in August 1979, the number of recent conversions has declined dramatically.

NEWLY CONSTRUCTED RENTAL HOUSING

Since the early seventies, the only new construction projects undertaken by the private sector in the city of Cambridge have been heavily subsidized by a variety of government housing programs. The most recently constructed rental project that contains any market rate units is located at 808 Memorial Drive and was completed in 1976. Composed of 301 units, the project was financed with tax-exempt financing through the Massachusetts Housing Finance Agency, in conjunction with low- interest permanent financing provided through HUD's Section 236 program. Only 81 units in the building are defined as "market rate", in so far as the tenants of these units are not subject to income restrictions under the Section 236 program. The rents for

these market rate units are $615 for a two-bedroom and $750 for a three bedroom, inclusive of heat and hot water. Similar to other MHFA projects, the equity return to the developer is limited to 6%.[10]

The only other activity in the new construction rental market is a project presently under construction in Central Square. Undertaken by the Winn Development Company, the project is located at the intersection of Western Avenue and River Street. When completed, the-ten story building will contain a total of 85 units, several levels of parking and approximately 3000 square feet of commercial space.[11] The project will provide 23 units affordable to low and moderate income persons, comprised of four three-bedroom units and 19 two-bedroom units. The balance of market rate units will be composed of 8 three bedroom and 54 two- bedroom units. The cost per unit is equal to $120,000, of which $50,000 will be subsidized through HUD's Housing Development Action Grant program and the SHARP program implemented by the state's Executive Office of Communities and Development. The developer projects to rent the units for an average of $850 per month for a two bedroom unit, inclusive of heat and hot water and $1,000 for a three bedroom unit. Structured parking will be available for an additonal $60 per month.

It is important to recognize that the subsidy package available to the developer, Winn, cannot be secured at the present time and, in light of the priority given rental

housing by the Reagan Administration, will not be available in the future. The depth of this subsidy significantly reduces the market risk undertaken by the developer, and , in the opinion of the author, may not adequately define the upper limits of the newly constructed rental housing market in the Central Square neighborhood. Both MHFA and the developer used rental buildings under the jurisdiction of the Rent Control Board as comparables to establish rent limits. Because these comparables are artifically controlled, they may not provide an accurate "reading" of the market demand for housing in the Central Sqaure neighborhood.

MARKET COMPARABLES

As was discussed above, the supply of rental housing in Cambridge has decreased over the last ten years. In addition, approximately 15,000 units, or 58% of the total number of privately owner rental housing units, are under the jurisdiction of rent control. Significantly, these include all multi-family rental properties larger than three units and constructed prior to 1969 fall under the jurisdiction of rent control. As a result, there are few properties in the Cambridge market which can serve as accurate comparables for the proposed 45-unit project.

The majority of projects appropriate as comparables

fall into the following three categories: 1) condominium units purchased by investors and currently rented; 2) rental units located in deregulated areas adjacent to Central Square such as Somerville and 3) units owned by institutions such as Harvard available to students and employees. As Exhibit Three indicates, the market comparables drawn from these three categories range from $500 to $760 for a one bedroom and $700 to $1000 for a two bedroom. On the basis of these comparables, the average rent for a one bedroom is equal to $630 and $850 for a two bedroom.

There are specific drawbacks associated with using these comparables. The units located in Somerville are in an inferior location with poor transportation access to Harvard Square and downtown Boston. The units available through Harvard are limited to persons studying or working for the institution and, as such, Harvard has an incentive to keep the housing affordable. In addition, many of the Harvard units are located in superior areas of Cambridge. Lastly, the number of condominium units currently rented are limited as well as technically under the jurisdiction of the Rent Control Board.

MARKET DEMAND AS PERCIEVED BY BROKERS

In light of the dearth of accuarte comparables, one must look to the privately owned, unregulated rental stock to provide an indication of demand and thereby an achievable

range of rent levels for the proposed project. In order to secure this data, the author interviewed four brokers active in the Cambridge market.[12] The brokers were first provided with an overall description of the quality, size and exterior and interior finishes of the project (as described in Chapter One). Subsequently, the brokers provided the author with their analysis of the image, market demand and projected rent levels for Central Square.

Image of Central Square

These brokers believe that while the demand for rental housing in Cambridge is extremely strong, the image of Central Square continues to be poor and has the effect of depressing rent levels. The Central Sqaure neighborhood is divided into a number of submarkets, including those portions of Cambridgeport (Neighborhood Five) and Mid-Cambridge (Neighborhood Four) which border on the Central Sqaure commercial district. These brokers point out that certain sections of these submarkets, particularly Neighborhood Four, are not strong residential markets given the predominance of lower-income persons and substandard housing. However, because these neighborhoods are more residential in character, rental and condominium units can command higher prices than housing which is, as descibed by one broker, "smack in the middle" of Central Square. The brokers believe that there is a great deal of "market

resistance" to this location one block from the intersection of Massachusetts Avenue and Prospect Street.

Brokers are encouraged by the ongoing renovation of the Central Square subway station. However, they do not see enough signs to believe that a significant and long-term improvement is underway which could alter the area's image. In their opinoin, the area could undergo a significant revitalization, which would mean a safer, more ameniable environment for a moderate-or middle-income renter or homebuyer. Alternatively, the area could continue in its present function as a service area to low-income residents, and the present problems of crime, loitering and marginal commercial establishments would remain. The brokers believe that the area has the potential to move in either direction and are not willing to make any predictions about trends in the area for the next three to four years.

Identifying the Market for the Project

The brokers believe that the most suitable market for this type of rental housing project would include students at MIT and Harvard and young professionals who work in downtown Boston, Harvard Square or Kendall Square. The brokers were divided on the question of whether these groups would be willing to live in Central Square and pay the rents necessary to finance debt service and operating expenses for a newly construction project. A number of the brokers cited

the accessibility of the Square to downtown Boston, Kendall Square, MIT and Harvard. In their opinion, the declining supply of affordable rental and condominium housing will make this project more competitive and mitigate against the poor image of its location. The alternative view provided by other brokers is that, with the exception of students, persons who can afford to pay rents in the range of $650-800 for a one bedroom and $800-1000 for a two bedroom do not want to live in the heart of Central Square. They would prefer to find housing in more desirable locations or purchase a small, "starter" condominium and gain the tax advantages of homeownership. Essentially, they do not believe that the overall housing shortage will significantly offset the image of Central Square.

According to these brokers, rents in the Central Square neighborhood range from $500 to $750 for a one bedroom and $650 to $1000 for a two bedroom, depending on the location, age of the unit and quality of construction. In contrast, in more desirable locations in Cambridge, the rents for a two bedroom range from $1000 to $1200. The poor image of Central Square translates into a discount of approximately $200 per month in the rent for a two bedroom apartment. The brokers suggested that a rent of $650-700 per month for a one bedroom and $800-900 per month for a two bedroom, exclusive of utilities, is the top of the market at the present time for a newly constructed, "b+" quality rental

project at the proposed site.

CONDOMINIUM MARKET

According to these brokers, the condominium market in the Central Square neighborhood at the present time is in the price range of $100 per square foot for "b+" quality units. Similar to their discussion of the rental market, these brokers cite the poor image of the Square as a negative influence on condominium prices. The price range for one bedroom and two bedroom condominium units is $85,000 to $95,000 and $120,000 to $140,000 respectively. These brokers suggest that, as the supply of single and multifamily housing continues to decline, virtually all of the first time homebuyers will be pushed into the condominium market, which will cause prices for condominiums to rise. The increasing demand for these units will mitigate against the poor image of Central Square and the market for "starter" condominiums in the price range of $100,000 to $150,000 in this location will become stronger.

As a result, a number of these brokers suggested that the subject site should be developed initially as rental housing and converted into condominiums in five to ten years. In their opinion, the developer will be able to realize a substantial gain upon sale given the revitalization of the Square and the ongoing appreciation of

residential property. They suggest that the market for condominiums at this site will be stronger in five to ten years, given the dwindling supply of condominiums and the present prohibition against conversion of rent controlled property into condominiums.

CONCLUSION: RECOMMENDED MARKET AND RENT LEVELS

The perspective of these brokers supports the conclusions reached at the end of Chapter One, namely that the poor image of the Square has a signifiacnt impact on the marketability of the proposed project. Nevertheless, given the overwhelming demand for rental housing, the project can be a success if the potential renter and rent levels are carefully identified. On the basis of field research, the author makes the following recommendations:

1) Graduate students and short term faculty at MIT represent a strong market for the project. In addition, young professionals who work in the Kendall Square area will appreciate the convenience of the project's location. These two groups should be targeted, as they will be less concerned with the Square's negative image.

2) Projected rent levels should reflect the location of the site as one block from the Square's commercial center. The author therefore recommends that rent levels be set at existing average rents, which approximate $650 for a one-

bedroom and $800 for a two-bedroom unit. These figures will be trended upward to the estimated date of construction completion.

While the author is confident that the project can achieve full occupancy given these rent levels, the political and financial feasibility of the project has not been established. The next chapter will analyze the political approval process, and the obstacles that the developer confronts in his efforts to secure project approval. Chapter Four will analyze the feasibility of the project using both private and public financing sources.

CHAPTER THREE

POLITICAL FEASIBILITY

During the last decade, Cambridge has acquired a reputation as a city that does not welcome new development. The public approval process appears to be highly politicized. Given this reputation, the political feasibility of a rental housing project at the proposed site in Central Square must be carefully examined and, if possible, a strategy must be formulated to respond to the concerns of city officals, City Coucillors and residents of the adjacent neighborhoods.

The role of the municipality in the development of this rental housing project will be significant. The concerns of local officials and residents will center around three issues: 1) the provision of a zoning amendment necessary to proceed with the overall project; 2) the applicability of rent control laws to the project and 3) the impact of the project on the adjacent neighborhoods.

ZONING ISSUES

While zoning regulations define a multi-family rental housing project as an allowable use, the developer wishes to tie developement on this parcel to new developement on the adjacent parcel on the western side of Prospect Street. As

was discussed in Chapter 1, the developer wishes to develop a parking garage and 80,000 sqaure feet of office space on the parking lot on the west side of Prospect Street, directly across from the site of the proposed housing project. While a parking garage is an allowable use, an office building in excess of 35 feet is not allowed under the existing zoning regulations. As the proposed office/garage structure will exceed 35 feet, the developer is in need of a new zoning ordinance from the City Council in order to proceed. [13]

A number of City Councillors and neighborhood residents do not support additional commercial development in Central Square. They are, however, strongly in favor of residential development. The strategy of the developer to date has been to formulate an overall plan for the two parcels on the east and west side of Prospect Street which acknowledges these political realities. In presenting a "package deal" of both the garage/office structure and housing project, the developer recognizes the desire of the City Council and the community for additional multifamily housing as well as their opposition to additional commercial development. The developer believes that the City Coucil will look more favorably upon his request for a zoning amendment for the garage/office structure if the housing project is contingent upon its receipt.

RENT CONTROL

Since 1969, the rental housing stock in the city of Cambridge has been governed by stringent rent control laws which limit the initial rents, rental increases and return on investment to owners of property constructed prior to 1969. Out of a total of 25,484 privately owned rental units, 15,000 units, or 58% units are under the jurisdiction of rent control. [14]

With regard to the applicability of these laws to the proposed project in Central Square, it is clear that the statute exempts any new construction project built after January 1,1969. The enabling legislation for the city is the Cambridge Rent Control and Eviction Enabling Act, passed by the Massachusetts Senate and House of Representatives on March 31, 1976. The act defines "controlled rental units" as all rental units except"...2) rental units the construction of which was completed on or after January 1,1969, or which are housing units created by the conversion from housing to nonhousing use on or after said date..."

Because the proposed project does not fall under the jurisdiction of the Rent Control Board, the existing ordinance which prohibits conversion of rental property into condominiums does not apply. [15] In 1979, the City Council passed an ordinance restricting the conversion of controlled rental units into condominiums except in the case of the

sale of a unit to a tenant who has lived in the unit continuously since August 10,1979. Because the proposed project does not contain "controlled units", the prohibition against conversion does not apply.

Future Application of Rent Control Laws

While the existing law clearly exempts buildings constructed after 1969, the City Council can always revise the existing statute to move the exemption date into the future. For instance, in 1990, the City Council could revise the existing law to define controlled units as those constructed on or after January 1, 1990. Under this scenerio, the proposed project would fall under the jurisdiction of the Rent Control Board. The future application of rent control laws would have a very serious impact on the project and the long term projections of financial feasibility.

The likelihood of an expansion of the existing law is contingent upon: (1) the position of those city coucil memebers who are in favor of rent control and (2) the overall political climate in the city. According to the Staff Director of the Rent Control Board, Bob Mervis, the city coucilmen, state legislatores and activists (such as Legal Aid lawyers) who support rent control do not believe that these laws should be extended to new construction multi-family projects. Mr. Mervis maintains that even these

advocates of rent control understand that its extension to newly constructed projects will have a negative impact on increasing the overall supply of rental housing through new construction.

Mr. Mervis points to the legislative history surrounding rent control to support his conclusions. In brief, when Govenor Dukkais was initially elected in 1970, he convinced the legislature to pass a statewide enabling act, which allowed individual communities to enact their own rent control laws. The cities of Boston, Cambridge, Somerville and Brookline subsequently passed rent control laws. In 1975, when the state enabling legislation expired, Dukkais was unable to convince the state legislature to pass an extension of the prior bill. As a result, the present procedure requires the locality, such as Cambridge, to seek approval from the state legislature and the Govenor of any revised rent control statutes. Only after the legislature has passed the bill and the Govenor has signed it can the statute become law. Mr. Mervis argues that the requirement of approval by the state legislature and the govenor will serve as a "check" on the activities of the City Council. Local realtors, however, point out that the state legislature tends to respect the concept of home rule and would, in all likelihood, approve any legislative initiative presented by the City Council.

The future political climate in the city will also affect the probabilities of a revision of the statute. Even though it is impossible to predict the climate, the city's unique electoral system does provide a number of clues as to how City Coucillors will evaluate the need for an expansion of the existing laws.

A key feature of this system is that the power in Cambridge lies with the City Council. The mayor is a figurehead, as opposed to other municipalities such as Boston where he (or she) leads the municipal government. The mayor is elected from the city council by a majority of votes, and therefore does not recieve the mandate from the electorate that would be forthcoming as a result of a general election.

The electoral system encourages the nomination and election of Coucillors who are more attuned to the interests of particular groups, as opposed to the concerns of the larger majority. City coucilmen are elected under a system of proportional, as opposed to majority, representation. Voters prioritize their votes and candidates are elected on the basis of a minimum number of "#1" votes. The net result is that city coucilmen need to secure a minimum of the total number of voters cast divided by the number of council seats plus one. In the last election, a candidate needed only 3,112 votes out of 28,000 votes cast in the city to secure a seat. This number represents only 3% of the city's overall

population. [16]

The effect of proportional representation is to encourage candidates who are responsive to the interests of a small minority. Because these coucilmen do not have to appeal to the majority of voters, they are not required to confront a number of issues which have an overall impact on the city. As a result, the ability of the city coucil or public officals to create longer term strategies which address these issues is severly hindered.

The only way to guarantee that the proposed project does not fall under the jurisdiction of rent control is to utilize state or federal financing. For instance, if the developer financed the project under the state SHARP program, the rents in the project would be regulated by the Massachsetts Housing Finance Agency and the project would be exempt from rent control, even if the City Council pushed the exemption date into the future. [17]

CONCERNS OF NEIGHBORHOOD RESIDENTS

Lastly, the political feasiblity of the housing project is contingent upon the reaction of the residents immediately adjacent to the site. The residents are formally organized into an advisory coucil named the Neighborhood Four Coalition, which has jurisdiction over Neighborhood Four, bounded on the southern edge by Massachusetts Avenue.

On the basis of discussions with the leaders of the Neighborhood Four Coalition and city officals, it appears that the concerns of the residents will focus on three issues: 1) the impact of traffic generated by the project; 2) the overall design of the building and its compatablity with adjacent structures and 3) the availability of a number of the units to low-and moderate- income residents. [18] The developer has initiated a series of meetings with neighborhood residents and city officals to inform them of the project and solicit their opinions . This process should enable the developer and neighborhood residents to reach an acceptable compromise over a majority of the design issues, as well as an approach to mitigate against the impact of additional traffic generated by the project.

With regard to the provision of rental units affordable to low-and-moderate income persons, the developer must first decide how the project will be financed, and whether such a financial structure enables him to make these units affordable to lower income persons and subsequently present these conclusions to the community residents. While this scenerio may appear obvious at first, the developer must refrain from raising expectations without some assurance that these expectations will be met. If it is not feasible to provide units at rents affordable to low-and moderate-income persons, the developer may need to demonstrate this by sharing his proformas with key members of the community,

as well as the City Coucil.

The strategy of the neighborhood residents with regard to negotiations with the developer and the City Coucil cannot be fully predicted at this time. The Winn Developement Company has had the most recent experience of interacting and negotiating with the residents of Central Square. As was described in Chapter Two, the development company is presently constructing a 85 unit residential project at the intersection of River Street and Western Avenue, located in Neighborhood Five. The project mananger stated that the community group was an active member of the development team and strongly negotiated for a number of design changes, as well as the provision of 3000 square feet of commercial space on the ground floor of the project. [19] However, the project manager added that the neogotiations were carried out in good faith and that the project received their full support.

A major distinction between the Winn developement and the project under consideration is that the developer was able to secure sufficient public subsidies to finance those project amenities desired by the neighborhood. The next chapter will carefully analyze the financial feasibility of the proposed 45 unit project, and whether the financial structure can accomodate the desires of the neighborhood residents.

CHAPTER IV

FINANCIAL FEASIBILITY

During the last decade, the financial feasibility of newly constructed rental housing projects in older cities has become imperiled, as the cost of construction and operating expenses has increased faster than rent levels. Even in cities such as Cambridge where the demand for rental housing is overwhelming, a rent level cannot always be achieved which generates revenues sufficient to cover the cost of operating expenses and debt service. The lack of privately financed, newly constructed rental housing in the city during the last fifteen years is evidence of the difficulties in achieving financial feasibility.

The project under consideration is no exception to this overall trend in the field of rental housing. However, the project suffers from an additional handicap, specifically its location in Central Square. As was discussed in Chapter Two, the negative image of Central Square has the effect of reducing the rents below those levels which could be achieved in alternative locations such as Harvard Square. According to local brokers, the rent levels of $650 for a one bedroom and $800 for a two bedroom (exclusive of utility payments) are the "top of the market" for a newly constructed unit located on the site under consideration,

one block from Central Square. These rent levels represent a discount of approximately $200 per month as a result of the poor image of Central Square.

The difficulties in achieving financial feasibility for a rental housing project, when combined with the additional handicap of this project's location, requires the developer to think creatively about financing strategies. If the project is not feasible using conventional, long term financing, the developer must consider options to reduce the cost of financing and/or the project's overall costs. This chapter first analyzes: 1) the impact of financing the project on a conventional basis and 2) the criteria used to measure financial feasibility. When the project has been found to be infeasible on a conventional basis, a range of private and public financing alternatives are examined, and their impact on the feasibility of the project is examined. In addition, several alternatives to reduce the overall cost of the project are analyzed concurrently. The challenge is to create a strategy to reduce both the cost of financing and overall project costs which can be implemented in the near future and well as assure the economic success of the project.

THE BASE CASE

In order to evaluate the base case using conventional financing, a template was developed to project revenues and

expenses over a ten year period, as well as the before and after tax return. After consultation with the developer, the following assumptions have been incorporated into the base template.

Table 4: Project Cost and Revenue Assumptions

Project Costs

Land Costs	$10,000 per unit
Building Costs	$64.00 per square foot
Parking Costs	$5,000 per space
Development Fee	5% of total costs
Contingency	5% of total costs

Revenues		Operating Expenses	
One bedroom (660 s.f.)	$820	Management	5% of net revenues
Two bedroom (905 s.f.)	$1000	Maintenance	2% of net revenues
Vacancy Rate	5%	Total	$3,074 per unit

Construction Period: 20 months		Growth Factors	
Holding Period: Ten years			
Disposition Cap Rate:	9%	Rents	5% per yr.
Before Tax Discount Rate:	20%	Expenses	4% per yr.
After Tax Discount Rate :	10%		

Because of the importance of rent levels to the overall economic feasibility of the project, the methodology used to establish them should be identified. The projected rent levels for the one and two bedroom units were developed by trending, at 6%, the rents which can be achievable at the present time at the site forward until the first year of operation. As was discussed in the previous chapter, rental

brokers believe that the highest rents which could be achieved at the present time for the proposed size and quality of unit is $650 for a one bedroom and $800 for a two bedroom, exclusive of utiliities and on site parking. The developer anticipates that the project could be complete and available for occupancy approximately September 1,1989. The brokers interviewed believe that a rate of six precent is a conservative estimate of the increase in the rents of decontrolled units.

In addition, because the largest component of the project cost is the building cost on a square foot basis, the assumptions used to establish the cost per square foot should be noted. The building construction costs were developed on the basis of discussions with the developer, who estimated present costs of $55 per square foot exclusive of parking. This cost was trended upward six percent annually for two and one half years until the commencement of construction to arrive at a figure of $64 per square foot.

CONVENTIONAL LONG TERM FINANCING

The base case for the project was developed using financing provided on a conventional, non-participation, long term basis. Conventional financing sources who would be willing to finance this project are commercial banks and

institutional lenders such as insurance companies or pension funds. The case uses an interest rate of 12% and amortization period of 30 years, on the basis of discussions with a syndicator and investment banker familiar with the cost of permanent financing at the present time. [20] Because the developer is not interested in investing equity into the project, the author analyzed the project as if it would receive debt financing equal to the entire project cost. In addition, the author assumed that syndication proceeds would be used to finance operating deficits in the initial years and that the project would be syndicated for an amount equal to the operating deficits.

Under this alternative, the project is clearly not feasible. It generates $1,412,383 in cash losses in the first nine years of operation. As was stated above, the author has assumed that the equity investment by limited partners will equal the operating deficits. The limited partners would therefore invest $1,412,383. The tax losses generated during the pay-in period are $3,400,002. The ratio of tax losses to operating deficits is equal to 2.4 to 1. Because of the magnitude of these losses, the after tax net present value, discounted at 10%, is equal to $479,894.

The tax losses generated under the base case are so large that the project meets the criteria of equity investors, who usually desire a ratio of $2 dollars of tax losses to one dollar of cash invested during the pay-in

period. [21] However, the real cash losses are so substantial as to make the project impossible to finance with potential investors.

In addition to generating unacceptably large cash losses, the project fails to meet the underwriting criteria of conventional lenders. When the first year net operating income is capitalized at 9%, the projected value of $3,742,811 is less than the total development costs of $4,987,661.

Lastly, the project is a poor investment for the developer if conventional financing is used. Its rate of return on assets (8%) is well below the rates of between 12% and 18% anticipated by a majority of developers.

CRITERIA TO MEASURE FINANCIAL FEASIBILITY

The base case using conventional financing demonstrates the difficulty in generating revenues from a newly constructed housing project which will finance debt service and operating costs. If the project cannot work on a conventional basis, the alternatives are to reduce either the cost of capital or project costs, or both, in order to bring the project within the range of economic feasibility.

At a minimum, these financial alternatives must reduce the real cash losses from the project and, if these losses do occur, confine them to no more than four years after the

first year of operations. However, even if these alternatives reduce the cash operating deficits, they must also be compatible with the financial interests of the developer in the project. The developer will earn a significant return only well into the holding period, after sufficient time has elapsed and rents have risen faster than operating expenses and debt service on an annual basis. The return to the developer will be forthcoming in the later years of the project and as importantly, upon sale, refinance or conversion into condominiums. Therefore, any financial alternative should enable the developer to capture this return in the later years. In addition, these financial alternatives should enable the developer to keep his equity investment to minimum, as he wishes to secure one hundred percent debt financing. Lastly, the financial alternative should be available in the marketplace at the present time or in the near future, with a realistic possibility of securing such financing.

PARTICIPATION LONG TERM FINANCING

In order to reduce the cost of capital to achieve economic feasibility, the alternative of a participation mortgage from a private lender was examined. Under this alternative (Number 2), the participation mortgage has an interest rate of 10% and the lender receives a 50 % share of 1) the cash flow after payment of operating expenses and

debt service and 2) residuals upon sale or refinance. The interest rate of 10% was chosen on the basis of discussions with a syndicator and investment banker familiar with the cost of participation mortgages for multi-family housing.[22]

The impact of this alternative is that although the cash losses are significantly reduced, the project is still economically infeasible. The table below summarizes the impact of on the project when the interest rate is reduced by 200 basis points from 10% to 12%.

Table 5:Comparison of Conventional & Participation Financing

Alternative	#1:Conventional 12%	#2:Participation 10%
Cash Losses	$1,412,383	$706,000
Percentage Change	50%	
Period of Cash Losses	9 years	6 years
Tax Losses during Pay-in period	$3,400,002	$2,088,536
Before Tax NPV	negative	negative
After Tax NPV	$479,894	$567,843
Before Tax IRR	negative	negative

The most significant impact of utilizing a participation mortgage is a 50% reduction in the operating deficits. In addition, the period of operating losses drops from nine to six years. However, while the overall financial

"picture" improves under this alternative, the project remains economically infeasible. In the first four years of the project, the debt coverage ratio does not exceed .80. The cash losses are so large that financing from a lender or equity investor would not be forthcoming.

THE IMPACT OF REDUCING PROJECT COSTS

If a reduction in the cost of capital does not make the project economically feasible, the developer can reduce the project costs concurrently with securing a participation mortgage at 10%. There are three components of the project costs which can be reduced. First, the building costs can be reduced from $64 per square foot to $58 per square foot, which represents a reduction of approximately 10%. This reduction can be accomplished without a significant drop in the quality level of the units. A construction cost of $58 per square foot is equal to $50 per square foot in current dollars.

The second cost component which can be reduced is the developer's fee, which is equal to 5% of the overall project cost in the base case. The developer can forego his fee and thereby recieve no reimbursement upfront for his services. Lastly, the land cost can be reduced from $10,000 per unit to $5,000 per unit. The latter figure is consistent with the current land prices for rental apartment units.

If the project is financed with a participation mortgage at 10% and the costs are reduced as discussed above, the project becomes significantly more feasible. The table below summarizes the impact of a reduction in project costs.

Table 6: Comparison of Participation Loan at 10% with and without Reduction in Project Costs

Alternative	#2:Participation 10%	#3:Participation 10% w/Costs Reduced
Cash Losses	$706,000	$259,315
Percentage Change	63%	
Period of Cash Losses	6 years	4 years
Tax Losses during pay-in period	$2,088,529	$1,155,978
Before Tax NPV	negative	negative
After Tax NPV	$567,843	$831,491
Before Tax IRR	negative	12.81%

The most significant impact of this alternative is a reduction of 63% in the cash losses from $706,000 to $259,315. In addition, the cash losses occur in the first four years, as opposed to a six year period under the previous alternative. The before tax IRR becomes positive and the after tax NPV increases by thirty two percent.

ASSESSING THE FEASIBILITY OF PRIVATE FINANCING

The analysis summarized above indicates that the strategy of reducing 1) project costs and 2) the cost of capital through a participation mortgage is the most

realistic alternative if the developer chooses to use private financing. However, the developer will still face significant obstacles if he wishes to secure a mortgage to finance the entire project. The permanent lender may not provide a long term loan in the face of substantial operating deficits in the early years, even if the developer is able to secure limited partners who agree, at the time of permanent loan closing, to finance these deficits. In all likelihood, the lender will insist on a debt coverage ratio of 1.15 in the first year of operation and thereby reduce the face value of the loan to achieve this ratio. The developer can seek out a secondary lender to provide interim financing during the early years of the project. [23] The interim loan would be "taken out" by the permanent lender as operating deficits decline. The secondary lender might require collateral other than the subject project, in addition to a personal guarantee from the developer. The cumulative demands of the two lenders and the investors could increase the transaction costs significantly, as well as make the financing package complicated and therefore difficult to close.

In addition to these obstacles, the alternative of a participation loan requires the developer to assume all of the risk for the first four years when the project is generating cash losses, but share fifty percent of the profit when the project finally "turns the corner". As a

result, a participation loan does not meet a criterion of the developer, specifically to capture a large portion of the project's cash flow in later years.

PUBLIC SECTOR FINANCING

The difficulties associated with securing private financing for the proposed project require the developer to analyze the alternatives available through the public sector. These alternatives will increase the transaction costs of the project, as well as impose a number of restrictions. In exchange, the developer may be able to secure operating subsidies and/or a reduction in the cost of capital which will enable the project to become economically feasible. The developer must determine whether these costs and restrictions can be justified on the basis of the subsidy that is forthcoming.

The balance of this chapter will describe in detail the federal and state programs available to finance newly constructed, multi-family rental housing. The costs, benefits and restrictions of each program will be identified. Subsequently, the economic feasibility of the proposed project will be analyzed using these public financing alternatives.

FEDERAL FINANCING PROGRAMS

Since the commencement of the first Reagan Administration in 1980, the number of programs available from the federal government to finance low and moderate income rental housing have greatly diminished. Considering the long-standing history of the federal government in financing moderate income housing, this reduction has critically affected the ability of both the private and public sectors to respond to the demand for rental housing.

The two subsidy programs available for the construction of family rental housing are the Housing Action Grant Program (HDAG) and the Urban Development Action Grant Program (UDAG), both funded by the Department of Housing and Urban Development. The HDAG program was funded with an initial appropriation of $315 million in Fiscal Year 1985.[24] As of this date, the Department has completed its review of applications for funding, and expects to make its second and final funding awards by August 1, 1985. The Administration's budget for HUD calls for the termination of the program in Fiscal Year 1986, and the Department does not expect that Congress will offer an alternative to require its continuation.

The only other source of financing is the Urban Developement Action Grant program (UDAG), which provides construction and permanent financing for real estate

projects in urban areas. As of this date, Congress has approved an annual authorization of $330 million for the coming fiscal year, which represents a 25% reduction in the program's FY 1985 budget.[25]

The competition for UDAG funds is fierce and, given current guidelines, the possibility of securing funding for the proposed project is negligible. Projects that are funded have the following characteristics: 1) they are located in cities that are defined by the Department as "distressed"; 2) they generate a large number of new jobs and tax revenues and 3) they leverage a minimum of five or six dollars of private funding for every one dollar of UDAG financing. While the city of Cambridge is defined as a "distressed" city, its poverty rate and percentage of substandard units is not as great as a number of other cities. Therefore, the project would not be as competitive as other projects from more "distressed" cities. In adddition, because the project is residential as opposed to commercial, it would not generate additional jobs for the city. Finally, in order for the project to achieve a positive cash flow in the first year of operations, the ratio of private to UDAG dollars would be approximately three to one. This ratio is significantly lower than the ratio achieved by projects that recieve funding under the program.[26]

Because these two programs represent the only federal

initiatives to encourage the production of rental housing, the developer must look to the state of Massachusetts for public sector financing alternatives.

STATE FINANCING PROGRAMS

The state of Massachusetts has taken the lead in creating new programs which attempt to fill the gap created by the decline in federal funding. The Massachusetts Housing Finance Agency and the Executive Office of Communities and Developement have developed programs to reduce the cost of capital and/or provide annual operating subsidies for munlti-family rental projects.

THE SHARP PROGRAM

The primary financing tool available at the present time is a combination of tax-exempt financing in conjunction with an annual project subsidy provided under the State Housing Assistance for Rental Production Program (SHARP). The purpose of the program is to encourage the production of rental housing available to middle income persons who can afford to pay market rate rents, as well as lower income persons who recieve a rent subsidy.[27]

Program Benefits

Construction and permanent financing for SHARP-assisted projects is provided through the Massachusetts Housing

Financing Agency (MHFA) from the sale proceeds of tax-exempt bonds. The interest on these bonds is approximately 2 to 4 points below conventional financing. At the present time, the interest rtae on bonds issued by MHFA is approximately 9.5% to 10%.

In addition to the favorable financing provided through the use of tax-exempt financing, the Executive Office of Communities and Development (EOCD) provides SHARP funds to finance operating deficits. These funds are in the form of a loan to write down the cost of interest payments on the tax-exempt bonds. By statue, the SHARP program may only provide "the minimum amount necessary to make the proposed rental housing project feasible...". This amount is defined as the gap between the "cost-based" rent and the "attainable" rent. "Cost-based" rent is defined as the rent necessary to support debt service payments and operating costs of a project. "Attainable rent" is defined as the maximum rent which can be achieved in the market. Because "attainable" rents will grow more quickly than "cost based" rents, the amount of the subsidy should decline after the initial years of operation and the project must be self-sufficient by its 15th year. (Because the SHARP program is administered by a public agency, the author questions whether MHFA is willing to underwrite projects with rents which "push" the top of the market upward and result in a substantial lease up period. The agency may favor projects which have "average"

or "conservative" rents and are fully rented upon completion, as opposed to those projects which achieve higher rental income streams and require less subsidy over the long term but have a longer and more difficult lease-up period.)

The Executive Office of Communities and Development (EOCD) requires that the developer make a minimum equity investment of 20% in order to make the required statutory finding that the SHARP subsidy is the minimum amount reqiured for project feasibility. In essence, once the developer has agreed to invest 20% of the project cost as equity (as defined below), the SHARP program provides an annual subsidy to the project. The subsidy reduces the interest payments on the bond issue from the rate prevailing at the time of bond issuance for tax-exempt rental housing projects to no lower than 5% annually. The term of the subsidy cannot exceed fifteen years.

Because the SHARP subsidy is a loan, it must be repaid "as the project can afford to do so" but in no event later than upon sale or refinance. At the time of repayment, the developer will repay the lesser of the outstanding SHARP loan or 50% of the sale proceeds. The regulations state that if the repayment does not equal the entire SHARP subsidy, "the unpaid remainder will be scheduled for later payment." During the term of the loan, interest accrues at 5% annually, although EOCD and MHFA may reduce the interest

rate on the unpaid remainder of the loan at the end of the subsidy term, if such a reduction protects low-income residents. In addition, the program allows for the recycling of SHARP funds back into the project as opposed to a loan repayment, if it can be demonstrated that these recycled funds will benefit the low and moderate income tenants. In any event, the developer must demonstrate how the low interest tenants will be "protected" after the SHARP subsidy end.

Program Restrictions

In return for reducing the cost of capital and providing an annual operating subsidy, the program places major restrictions on the developer. These restrictions fall into two general categories: 1) a setaside of the units for low and moderate income persons and 2) a minimum equity investment and a limitation on the annual return to the developer.

The program requires that a minimum of 25% of the units must be affordable to low-income persons, who are defined as families with incomes which do not exceed 80% of the area's median income. The rents in these units are set according to the maximum limit allowed under HUD's Section 8 Existing program, which provides rental assistance payments to low income persons. Developers must market these units to persons who have already secured certificates for rental

payments under HUD's Section 8 program or the state's Section 707 Program (similar in structure and purpose to the Section 8 Program). If the developer is unable to fill all of the units with persons who have certificates, the state will additional make Section 707 certificates available to subsidize the rents of those units set aside for low income tenants. The developer is required to fill the units with tenants chosen from the waiting list compiled by the local Housing Authority. In summary, the developer relinquishes a certain amount of control over the tenant selection process for these units in exchange for favorable financing provided under the program. The program also requires the developer to maintain these units as affordable to low income persons for a minimum of fifteen years.

The second program restriction requires a significant equity investment from the developer and also regulates the cash return received by the developer on an annual basis. The equity investment is equal to 20% of the project costs, and is composed of the following components:

1) The developer's fee of 10% of project costs (exclusive of land costs). If the developer chooses to forego his fee, the equity required at closing can be proportionately reduced.

2) Cash equal to 2% of the mortgage amount.

3) A standard letter of credit in a minimum amount equal to 4% of the mortgage for the term of their mortgage.

This letter of credit can decline by 1% per year after each year with a positive cash flow.

4) An additional letter of credit for a term of five years in the amount of 4% of the mortgage. The developer may reduce this letter of credit by an amount equal to cash contribution at closing in excess of 2% or the present value of any operating subsidy that the developer proposes to provide.

The program also limits the annual return on equity to a maximum of 6% for fifteen years. However, the program does provide reasonable allowances for management fees (6% of gross rents), replacement reserve (.075% of the direct construction costs) and a vacancy allowance (a minimum of 5%). These allowances can provide the developer with an additional source of income.

Availability of Sharp Funds

The competiton for SHARP funds is keen, given the lack of alternative financing sources from the federal government. Since July 1, 1984, a total of $13 million as been allocated by the State legislature and expended by the Executive Office of Communities and Development. The demand for SHARP funds, as measured by formal applications, has exceeded the appropriations by over 600%. It is anticipated that additional SHARP funds will not be available untill

spring of 1986, at which time EOCD will fund applications from appropriations to be recieved from the state on July 1,1986.

In addition, two projects located in Cambridge have been funded under the SHARP program during the last year. Given the political necessity of ensuring that SHARP funds are provided to a variety of communities across the state, additional projects from the city of Cambridge may be less competitive than those from communities which have not secured program funding to date.

THE TELLER PROGRAM

The second alternative available on a state level is a new program call the TELLER Program. Under the program, local Housing Authorities can issue tax-exempt bonds to finance rental housing projects. The program requires that 20% of the units be affordable to moderate income persons.[28]

Program Benefits

The major advantage of the TELLER program is that a developer can access long term financing at low rates, and, in the case of a high income area such as Cambridge, provide a relatively shallow subsidy in return. Under the program, a total of 20% units must be set aside for persons with

incomes that do not exceed 80% of the median income of the municipality. In the case of the city of Cambridge, eighty percent of the median income is equal to $25,850. Given the requirement that no more than 30% of the family's income can be used to pay for the cost of shelter, the maximum rent for a rental unit, inclusive of utilities, is equal to $646. If the rents for the market rate units are fixed at $820 for a one bedroom and $1000 for a two bedroom (exclusive of utilities), the annual project subsidy to make units affordable to moderate income persons is $30,720.

At the present time, the interest rate on tax-exempt bonds for multi-family rental housing projects ranges from 8.0% to 10.%, inclusive of transaction costs. If a developer wishes to secure tax-exempt financing on a longer term basis such as ten or twelve years, the interest rate on the bonds will be in the range of 9% to 10.5%. Depending upon the method used to issue the bonds, the developer will pay between six and ten points initially to finance transaction costs.[29]

The major barrier to the developer who wishes to enter the capital market for tax-exempt bonds is the requirement to secure "credit enhancement". Bondholders require some form of "credit enhancement" from the developer in order to ensure that funds will be available to pay principal and interest payments should the project generate insufficient cash flow. Credit enhancement is secured through four

sources: 1) an insurance company, who issues a guarantee or surety bond; 2) the Department of Housing and Urban Developement (HUD), who provides insurance through the 221(d)(4) program; 3) rated letters of credit, which are secured through a rated, commerical bank or unrated letters of credit secured through a savings and loan institution; and 4) insurance provided through the Federal National Mortgage Association (FANNIE MAE).[30]

The project under consideration herein would, in all likelihood, be unattractive to an insurance company on the basis of its' size as a $5 million project.[31] With regard to the second option of securing mortgage insurance through HUD, the primary drawback is the amount of time involved in securing approval under the 221 (d) (4) program. The average timeframe to secure a firm committment is approximately one year.[32] The Department charges an anuual insurance premium of one half of one point for insurance. Given a base rate of 8.25% for these bonds, the effective rate under this option would be 8.75%.

If the third option is analyzed, the feasibility of securing a letter of credit from a rated commercial bank has diminished recently as bank regulators have become increasingly critical of contigent liabilities such as letters of credit. In addition, in a volatile capital market, banks are unwilling to provide long term letters of credit which would be coterminous with the tax-exempt issue.

Although some Savings and Loan Associations may be willing to issue letters of credit, they are unrated in the marketplace. In order to ensure that bonds backed up with a letter of credit from an S & L receive a favorable rating in the marketplace, these institutions must collateralize the letter of credit with assets having a value equal to between 120% and 170% of the face value of the bonds. In addition, the annual fee to secure a letter of credit will add 1.25% to the interest rate, yielding an effective rate of 9.5% for these bonds at the present time.[33]

Lastly, the Federal National Mortgage Association does provide insurance for multi-family tax-exempt issues. Unfortunately, their underwriting criteria of a debt coverage ratio of 1.15 at the end of the second year of occupancy makes this project, as well as almost all of the potential projects in the Northeast, unacceptable.[34]

In summary, all of the four credit enhancement alternatives discussed above present problems for the developer. However, the most feasible alternative appears to be to secure mortgage insurance through the 221(d)(4) program, although this option would require a significant amount of time and energy to "lead" the project through the program's procedures. In addition, HUD will require letters of credit from the developer in order to finance operating losses generated in the early years. Provision of mortgage insurance for the project will be contingent upon the

developer's ability to secure these letters of credit.

In addition to reducing the cost of capital to the developer, the TELLER program allows the developer to retain control over the tenant selection process. The responsibility to comply with the minimum set aside of 20% of the units rests with the developer and the bond purchaser, as opposed to the local Housing Authority. The remaining 80% of the units can be rented at prevailing market rates.

Program Restrictions

The program contains few restrictions in comparison to the SHARP program. As was stated above, the developer must make 20% of the units affordable to low income persons. In addition, these units must remain affordable during what is termed the "lock-in" period. The "lock-in" period is defined as the period beginning on the date of issuance of the bonds and ending on the later of the date 1) which is ten years after 50% of the units are occupied or 2) half of the term of the bond with the longest maturity in the bond issue.

The developer is also prohibited from converting the project into a condominimum during the lock-in period, although this restriction may be less onerous if the term of the bonds is relatively short. In addition, for a period equal to four years after the expiration of the lock-in

period, if the developer wishes to convert the project into condominium units, he may do so only if the low and moderate income tenants can remain in the project on a rental basis until the end of this additional four year period. After the four years has passed, there are no restrictions on the developer with regard to conversion or requirement to enable low and moderate income tenants to continue occupancy in the project.

The most significant difference between the SHARP and TELLER programs is that the TELLER program does not restrict the annaul return to the developer during the bond term or thereafter. Because this project generates a significant cash flow in the later years, ths distinction has an important impact on measuring economic feasibility and return.

Availability of TELLER bonds

Regulations for the TELLER program have been promulgated only recently by the Executive Office of Communities and Development. As such, the program does not have an extensive track record in the state. The first bond issued under the program was recently completed by the Springfield Housing Authority, and applications for a total of 3000 units are pending with other local housing authorities. In addition, the Executive Office of Communities and Development is gearing up to provide

technical assistance to local housing authorities.

The only limitation on the availability of TELLER bonds is the tax proposal recently submitted by the Reagan Administration, which eliminates tax-exempt financing for all newly constructed, rental housing projects. If the Administration's bill is approved with this provision, the only remaining federal initiative to reduce the cost of capital for rental housing will disappear.

MHFA TAX-EXEMPT FINANCING

The final alternative available from the state of Massachusetts is to access tax-exempt financing through the Massachusetts Housing Finance Agency (MHFA) without a SHARP subsidy. The rate on long term tax-exempt bonds issued by MHFA is in the range of 9.5% to 10%.[34] To date, the agency has issued tax-exempt bonds for rental housing projects only when a SHARP subsidy is also available. However, the agency anticipates that legislation pending presently in the statehouse will enable it to issue tax-exempt bonds without a SHARP subsidy in the near future.

Program Benefits

The basic features of the program sponsored by MHFA are similar to the TELLER program. The benefit of securing tax-exempt financing through MHFA is that, as a coinsurer, they can perform the underwriting analysis required to receive

insurance under the 221(d)(4) program more expeditiously than the Federal Housing Administration. The time period necessary to process an application can be reduced significantly. In addition, the developer has to pay approximately two points upfront to the Agency, as compared to between six and ten points under the TELLER program.

Program Restriction

The MHFA program will incorporate many of the restrictions of the TELLER program, such as the prohibition against conversion until the end of the lock-in period. However, the Agency plans to impose additional restrictions which makes this option less economically feasible from the perspective of the developer. These restrictions are: 1) the developer will be required to invest equity into the project equal to 10% of the overall cost, excluding the cost of land acquisition or alternatively, or forego this amount as a developer's fee; 2) the annual return received by the developer will be limited to 6% of his equity investment for fifteen years and 3) the developer will be restricted from selling the bonds until the end of the fifteenth year. The most serious of these three restrictions is the limitation on return on equity to 6%. As a result, the before tax NPV and IRR will be significantly less than with bonds issued through the TELLER program.

FINANCIAL FEASIBILITY OF PROJECT WITH PUBLIC FINANCING

This chapter will conclude with an analysis of the financial feasibility of the proposed project, utilizing SHARP, TELLER and MHFA financing. The financial risks and return to the developer will be identified, as well as compared to the benefits forthcoming if private financing is utilized.

Project Feasibility with SHARP Financing

If a combination of SHARP funds and tax-exempt financing is utilized, the project becomes economically feasible. The table below compares the cash losses and returns generated using: 1) SHARP subsidies and tax-exempt bonds with an interest rate of 10% and 2) a participation loan at 10% with a reduction in project costs (discussed earlier in the chapter as Alternative #3).

Table 7:Comparison of SHARP and Participation Financing

Alternative	#4: SHARP w/ bonds at 10%	#3: Participation 10% w/costs reduced
Cash Losses	$20,384	$259,315
Percentage Change	92%	
Period of Cash Losses	1 year	4 years
Tax Losses During First Four Years	$1,343,672	$1,155,978
Before Tax NPV	$68,279	($55,339)
After tax NPV	$1,103,168	$831,491
Before Tax IRR	29.83%	12.81%

The overall financial picture changes dramatically when SHARP financing is used. The risks to the developer are largely eliminated, as the operating deficits drop from $259,315 to $20,384. While the SHARP program requires the developer to make an equity investment of $507,814, if the developer agrees to forego his fee of $422,313, his cash equity drops to $85,501.

Although the developer's return is limited to 6% for the entire holding period, this limitation does not negatively affect the net present value or rate of return of the project. While the developer must repay $1,449,757 in SHARP funds upon sale, the after tax NPV rises to $1,103,168 under this scenerio. The before tax rate of return of 29.83% exceeds the developer's expectations of 20%.

The greatest benefit of using SHARP financing is the elimination of those complications associated with securing a participation loan, as discussed earlier in the chapter. The developer is not required to syndicate the project in order to achieve financial feasibility, or secure interim financing from a secondary lender. However, as SHARP funds are awarded on a competitive basis, the developer must be willing to compete with other projects in the state of Massachusetts.

Project Feasibility with TELLER Bonds

Unfortunately, the project is not economically feasible

if TELLER bonds with an interest rate of 9% is used. As was discussed above, credit enhancement will be difficult to secure, although the most feasible option for the developer is to secure mortgage insurance through HUD's 221(d)(4) program. If this alternative was utilized, the effective rate for the tax-exempt bonds would be approximately 9%.

Table 8: Comparison of SHARP and TELLER Financing

Alternative	#4:SHARP w/ bonds at 10%	#5:TELLER bonds at 9%
Cash Losses	$20,384	$761,670
Period of Cash Losses	1 year	7 years
Tax Losses During pay-in period	$671,839 during 1st 4 yrs.	$1,991,757 during 1st 7 yrs.
Before Tax NPV	$68,279	($140,219)
After Tax NPV	$1,103,168	$786,716
Before Tax IRR	29.83%	13.04%

Similar to the private sector alternatives discussed earlier, the losses generated with the use of TELLER bonds at 9% are so large as to make the project impossible to finance. The losses continue for seven years, which constitutes a majority of the holding period. The magnitude of these losses is a direct result of the annual subsidy of $30,720, necessary to make the units affordable to lower income tenants. This subsidy paid by the developer offsets the reduced interest rate on the tax-exempt bonds. In addition, the added cost of credit enhancement in the form

of an annual insurance premium of 50 basis points increases the effective rate on the bonds.

The only other type of option available to the developer is to simultaneously reduce the costs of the project and the interest rate on the tax-exempt bonds. As was outlined earlier, project costs can be reduced if the developer chooses to: 1) forego his development fee of 5%; 2) reduce building costs from $64 per square foot to $58 per square foot and 3) reduce his land cost per unit from $10,000 to $5,000.

In addition, the interest rate on the tax-exempt bonds could be lowered to approximately 8%, if the developer was able to secure credit enhancement from a joint venture partner as opposed to financing this fee on an annual basis. For instance, if the developer was able to interest either Harvard University or MIT in the project as a source of student housing, these institutions might be able to lend their credit rating to the project and guarantee repayment of the bonds to the bondholders. In this event, the additional cost of credit enhancement would be eliminated and the bonds would carry a rate of 8%.

The table below summarizes the financial feasibility of the project when project costs and the interest rate on the TELLER bonds are simultaneously reduced. In addition, this alternative is compared Alternative #5, which utilizes TELLER bonds at an interest rate of 9%.

Table 9: Comparison of TELLER Bonds at 9% and TELLER Bonds at 8% with a Reduction in Project Costs

Alternative	#5: TELLER bonds at 9%	#6: TELLER bonds at 8% w/costs reduced
Cash Losses	$761,670	$173,011
Precentage Chang	77%	
Period of Losses	7 years	4 years
Tax Losses during Pay-in Period	$1,991,757	$882,658
Before Tax NPV	($140,219)	$338,192
After Tax NPV	$786,716	$1,255,234
Before Tax IRR	13.04%	44.55%

The project feasibility improves dramatically under this last alternative. Cash losses are reduced by 77%, and the before tax NPV becomes positive. The before tax rate of return of 44.55% is the highest to date.

The project is clearly financially feasible under this alternative, and is second only to the SHARP scenerio in terms of reducing cash operating losses. The major difficulty for the developer is to secure a joint venture partner, such as MIT or Harvard University, who would be willing to guarantee repayment of the bonds. These institutions may not percieve that their interest in creating additional student housing extends to providing this guarantee.

Project Feasibility with MHFA Financing

The rate for tax-exempt bonds issued by MHFA is presently in the range of 9.5%, or 50 basis points higher than the rate for TELLER bonds that are insured through HUD's 221(d)(4) program. As was analyzed above, the project is economically infeasible when TELLER bonds at 9% are used (Alternative #5). Therefore, the project cannot be economically feasible under MHFA's program, which provides financing at a higher cost.

CONCLUSION

While the economic feasibility of the project was doubtful using a participation loan from the private sector, the project is feasible if public sector financing is used. The SHARP program and the TELLER program (with an interest rate of 8%) will minmize operating losses and provide a healthy return to the developer. However, these options carry the additional risk to the developer that, after several months of negotiations with public and/or not-for-profit institutions, the financing will not be forthcoming. In the next chapter, the author will discuss the tradeoff between the risks and rewards under these two options, as well as present recommendations for action to the developer.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

The previous chapters have described a number of obstacles which confront a developer who wishes to build multi-family housing. Because the costs of construction and financing have risen faster than income and rent levels, many rental housing projects have been pushed out of the conventional financing market. They have proceeded only when the developer has utilized an array of federal and state initiatives, created to fulfill the public goal of making rental housing available to middle and low income persons.

The proposed 45 unit rental housing project in Central Square is no exception to this overall trend. The obstacles to achieving market, political and financial feasibility are significant, and the developer will be required to make a large investment of time and energy if these obstacles are to be overcome.

As has been discussed earlier, the political feasibility of the project may be more attainable than financial feasibility. Given the existing political climate of the city, the developer may need to allocate a significant amount of time to negotiations with appropiate neighborhood organizations. However, city officals and neighborhood activists are supportive of residential

development. As a result, the author has concluded that the probability is high that public approval and support for the project will be forthcoming.

With regard to the market feasibility of the project, the author believes that a desirable segment of the middle income housing market can be attracted to the site. As was discussed in Chapter Two, the growing demand for rental housing in Cambridge helps to mitigate against the negative image of the site and Central Square. However, the developer must discount the rents by approximately $200 per month in order to effectively compete with alternatives available in the more desirable sections of the city. In summary, while a desirable market for the project can be attracted given rent levels of $820 for a one bedroom and $1000 for a two bedroom at the time of lease-up, the revenue stream generated by these discounted rent levels make the project more difficult to finance.

The author sought to analyze the key issue of financial feasibility using a variety of public and private alternatives. These alternatives can be laid out along a continuim that identifies the cost of operating and/or capital subsidies and the corresponding level of public intervention in the project. The most traditional financing source, a conventional mortgage, provides the least economic return to the developer. However, under this alternative, the developer can pursue his objective of receiving one

hundred percent of the cash flow and residuals upon sale or refinance.

On the opposite extreme, the SHARP program provides an annual operating subsidy to the project, and thereby fills the gap between net operating income and debt service in the early years of the project. In exchange, the developer must agree to provide twenty five percent of the units to lower income persons, and his rate of return on the project is regulated for fifteen years. As significantly, the developer must compete with other projects for a limited amount of funding, and the project has no guarantee of receiving the amount of SHARP funds requested.

The TELLER program falls within these two extremes. The level of subsidy is not as deep as under the SHARP program, and there are no limitations on the developer's annual return. However, in order for the project to acheive financial feasibility, the developer must be willing to forego a development fee of 5%, as well as reduce the land costs from $10,000 per unit to $5,000 per unit. In sum, the developer is making a significant equity contribution. The developer's criterion to minimize his equity investment is not met.

In addition, if TELLER bonds are used, the developer must identify a partner who can supply the necessary "credit enhancement" and thereby reduce the rate on the tax-exempt bonds. As was outlined earlier, the developer could attempt

to interest Harvard or MIT as a joint venture partner to provide the credit enhancement. However, the negotiations with either of these institutions may be protracted and require a substantial committment on the part of the developer.

The author has concluded that the only alternatives which can ensure financially feasiblity are the SHARP program and the TELLER program with an interest rate of 8% and reduced project costs. If the developer is unwilling to: 1) forego his fee and accept a lower land cost on a per unit basis or 2) invest substantial time in competing for SHARP funds, the project is not feasible and should not be pursued. If these alternatives are acceptable, the complications and contingencies associated with TELLER and SHARP financing should be furthur explored. Specifically, discussions should be initaited with the both MHFA and EOCD to determine whether the project has a reasonable chance of recieving SHARP financing in the spring of 1986. In addition, the developer should initiate discussions with MIT to determine whether the University is interested in the project as a source of student housing and if their interest extends to the provision of credit enhancement.

The present owner of the site does not have track record in financing and constructing multifamily housing projects. Therefore, if he does proceed, he will be required to invest substantial time and energy in learning the

intricacies of public programs, such as SHARP or TELLER. In addition, he will have to learn how public agencies interact and negotiate with the private sector. Unless he is interested in developing additional housing projects in the future, the "learning curve" may be too expensive and timely, given his ability to pursue additional development opportunities.

However, the developer has recognized the community's desire for new rental housing, and the benefit of the project in negotiations with the City Council for a zoning amendment for the adjacent parcel. The developer may desire to perserve this link between residential and commercial development, but be unwilling to invest in the steep "learning curve" associated with the project. His option is to enter into a joint venture or sell the site to a housing developer who has the necessary expertise.

Many of these housing developers are willing to bear both the risks of a housing project that generates operating losses in the early years, as well as the transaction costs associated with a complicated financial package. In many instances, these developers do not expect that their return on investment will be generated by the project's cash flow. Future syndication and sales proceeds for the project provide them with their equity return. In addition, these developers are familiar with the "language" of public finance programs, as well as the negotiating style of public

officals.

The site has significant value to these developers. It is located in a market with a limited supply of rental housing and a demand that will not decline in the foreseeable future. While the project is not economically feasible in the initial phase, it generates large cash flows in the later years. If the revitalization of Central Square proceeds, the developer could convert the rental units into condominiums in the later years and earn a significant return.

The present owner should consider these options carefully. The City Council may be unwilling to provide a zoning amendment for the adjacent parcel without some guarantee that a housing project will be developed on the subject site. In this event, the owner may not be able to sell the site to a housing developer without a firm committment that he will construct a multifamily housing project. The second option of a joint venture may require an excessive amount of the owner's time (and legal fees) to negotiate a joint venture agreement, given the relatively small size of the project.

The final alternative available to the developer is to maintain the site in its present condition as a parking lot. The developer may conclude that the costs of development, joint venture or sale are prohibitive at the present time. If he chooses this option, he can proceed at a later date

when the image of Central Square has improved and the project can compete more favorably with alternative locations in the city of Cambridge.

APPENDIX EXHIBITS

EXHIBIT THREE

LIST OF COMPARABLES

NAME,LOCATION AND AGE	NO.OF UNITS/ELEVATOR	MONTHLY RENT/ SQ. FEET	AMENITIES
1.Austin Court 12 Inman Street Cambridge,Ma. (2 blocks from Central Sq.) 12 years old	6 stories 30 units	Studios: $400-$500 One Bed.: $500-$600 Two Bed.: $750-$900	Twenty two covered parking spaces which rent for $25 per month. A deck and sauna are located on the roof. Gas heat is included in the rent. Converted to condominium; roughly one third of the units are currently rented.
2. 16-18 Trowbridge St. Cambridge, Ma. (Located NW within one block of Mass. Ave) Constructed in the 1970's	4 stories 28 units	Studios: $400-$435 One Bed.: $595-$625 Two Bed.: $800-$850	Twenty eight parking spaces under the deck area for $25 per month. Gas heat in included in the rent.
3. The Cambridge House 1643 Cambridge Street Cambridge, Ma. (located near Harvard Square) Constructed in 1970	7 story 36 units	One Bed.: $650 Two Bed.:$800-$950	Covered parking is included in the rents.Tenant pays for oil fired baseboard hot water and heat. Converted to condominiums in 1981; a number of the units are currently rented.
4.1600 Massachussetts Ave Cambridge, Ma. 5 years old	5 stories 60 units	Two Bed.: $950 1000 s.f./$0.95 s.f.	Tenant pays for all utilities. Units include two bathrooms. All units contain balconies and fireplaces. Building is located adjacent to Harvard law school.

5. Soldiers Field Park Soldiers Field Road Boston, Ma.	70 studios 186 One Bed. 198 Two Bed. 26 Three Bed.	Studio:$465-$552 One Bed.:$620-$759 Two Bed.: $820-$1090 Three Bed.: $1226-$1273	Rent includes heat and hot water. Children's center and play area available. Garage parking available for $60 per month; uncovered parking available for $45 per month. Harvard owned and affiliated.
6. Peapody Terrace Memorial Drive Cambridge, Ma.	89 Studios 226 One Bed. 161 Two Bed. 22 Three Bed.	Studios: $366-399 One Bed.: $470-571 Two Bed.: $630-$744 Three Bed.: $1017	Heat and hot water are included in the rent. The complex also includes a convenience store and children's center. Garage parking available for $60 per month. Harvard owned and affiliated.
7. 115 Highland Street Somerville, Ma. 3 years old	3 stories 14 units	7 Two Bed.: $700 900 s.f./$0.78 psf 7 Three Bed.: $800 1000 s.f./$.80 psf	Heat, hot water, A/C, laundry, wall-to-wall carpeting and one parking space are included in the monthly rent.
8. 425 Broadway Somerville, Ma. 10 years old	6 stories 24 units	12 One Bed.: $600 650 s.f./$0.92 p.s.f. 12 Two Bed.: $730 900 s.f./$0.81 psf	Heat, hot water, A/C, balconies, views and one parking space included in the monthly rent.
9. 14 Spring Street Somerville, Ma. App. one year old	4 stories 6 units	6 Two Bed.: $750 875-900 s.f./$.83 psf	Heat, hot water,A/C, wall to wall carpeting,laundry facilities and one parking space included in the rent.
10. 278 Beacon Street Somerville, Ma. App. 7 years old	6 stories 36 units	19 One Bed.:$600 650 s.f./$0.92 psf 17 Two Bed.: $700 900 s.f./$0.78 psf	Heat, hot water, A/C, laundry facilities, wall to wall carpeting and one parking space are included in the monthle rent.

EXHIBIT IV: BASE CASE / FINANCIAL FEASIBILITY WITH CONVENTIONAL FINANCING
ALTERNATIVE #1

DEVELOPMENT PROFORMA: TOFIAS PROJECT

EXHIBIT A: GENERAL INFORMATION

DATE OF PROJECTION:	August 1,1985
PROJECT NAME:	CSR
LOCATION:	Cambridge, Ma.
NUMBER OF UNITS:	45
EST. START DATE:	4/1/1988
COMPLETION DATE:	1/1/1990
CONSTRUCTION TIME:	20 months

A. SITE INFORMATION

Sqaure Footage of Parcel:	27,376
Bld. Gross Sqaure Footage:	47,400
Bld. Net Square Footage:	38,520
Building Efficiency:	81%
No. of Parking Spaces:	45

B. UNIT CHARACTERISTICS

Number of Units:	45
Total Sq. Feet:	47,400
No. of Studios:	0
Sq. Ft. per unit:	0
No. of (1) bedrm.	9
Sq. Ft. per unit:	0
No. of (2) bedrm.:	36
Sq. ft. per unit:	0
No. of (3) bedrm.:	0
Sq. Ft. per unit:	0

BASIS FOR PROJECTIONS

DEVELOPMENT PHASE

Land	$10,000.00	per unit
Site Improvements	$0.00	per unit
Building Construction	$50,000.00	per unit
	$64.00	per sq. feet
Parking	$5,000.00	per unit
Consultants	$10,000	
Architectural & Engineering	3.75%	of const. cost
Architectural Supervision	1.25%	of const. cost
Development Fee	5.00%	of const cost
Legal and Accounting	$60,000	
Appraisal Fees	$0	
Permits	$0	
Marketing/Leasing	$50,000	
Insurance during Const.	$50,000	
R.E. Taxes during Const.	$50,000	
Contingency	$217,290	5% of total costs
Construction Loan Fee	$0	
Organizational Costs	$0	

OPERATIONS PHASE

MONTHLY REVENUES

Studio:	$0	per unit
(1) bedroom:	$820	per unit
(2) Bedroom:	$1,000	per unit
(3) bedroom:	$0	per unit
Parking Spaces:	$50	per space
TOTAL ANNUAL REVENUES:	$547,560	

ANNUAL EXPENSES

Administrative	$5,000	
Management:	$27,378	5.00% of revenues
Maintenance:	$10,951	2.00% of revenues
Real Estate Taxes:	$50,000	
Utilities:	$10,000	
(Common Area)		
Utilities:	$0	$0.00 per unit
(Units)		
Security:	$30,000	

Working Capital (Operating Deficits)	$0
Letters of Credit Fees	$0
Commissions	$50,000

SALE:	
Stabilized Cap Rate:	11.0%
Disposition Cap Rate:	9.0%
Sales Expense:	6.0%

TAXATION:	
Ordinary Income:	50%
Capital Gains:	20%

STABILIZED YEAR:	2
HOLDING PERIOD: (years)	10

GENERAL PARTNER RATE OF RETURN	
Before Tax:	20%
After Tax:	10%

LIMITED PARTNER RATE OF RETURN	
Before Tax:	25%
After Tax:	12%

CONVENTION:	End of Year

Water:	$5,000	
TOTAL EXPENSES:	$138,329	$3,073.98 per unit
Replacement Res.	$45,000	

LEASING	
Vacancy Rate: (Annual)	5% of gross revenues
Revenues: Lease-Up Year	100.00% of gross revenues
Reveues:Stabilized Year	100.00% of gross revenues

GROWTH FACTORS:	
Market Rents	6% per annum
Operating Expenses	4% per annum

DISTRIBUTION TO LIMITED PARTNERS	
Percent of Cash Flow:	50%
Percent of Tax Benefits:	50%
Percent of Residuals:	50%

EXHIBIT B: PROJECT COST ESTIMATE

YEAR ITEM COST ESTIMATE	YR. 1 CONSTRUCTION	YR. 2 LEASING	COST PER SQUARE FOOT
Land	$450,000		
Improvements			
Building	$3,033,600	$0	$64.00
Parking	$225,000	$0	$4.75
Site Improvements	$0	$0	$0.00
Arch. & Eng.	$122,198	$0	$2.58
Architectural Supervision	$40,733	$0	$0.86
Total Improvements	$3,871,530	$0	$81.68
Consultants	$10,000		
Legal and Accounting	$60,000	$0	$1.27
Appraisal Fees	$0	$0	$0.00
Permits	$0	$0	$0.00
Marketing/Leasing	$50,000	$0	$1.05
Insurance during Const.	$50,000	$0	$1.05
R.E. Taxes during Const.	$50,000	$0	$1.05
Contingency	$217,290	$0	$4.58
Construction Loan Fee	$0	$0	$0.00
Development Fee	$162,930	$0	$3.44
Organizational Costs	$0	$0	$0.00
Working Capital (Operating Deficits)	$0	$0	$0.00
Commissions	$50,000		$1.05
Points	$41,332	$0	$0.87
Construction Interest	$434,579	$0	$9.17
Letters of Credit	$0	$0	$0
Total Indirect Costs	$1,116,131	$0	$23.55
TOTAL ESTIMATED COSTS	$4,987,661	$0	$105.22

EXHIBIT C: MORTGAGE SCHEDULE

Financing Alternative:	1		
Perm. Mortg.Balance:	$4,987,661	Const. Mort. Balance:	$4,987,661
Interest Rate:	12.00%	Construction Interest:	11.00%
Term:	15	Construction Points:	1.00%
Amortization Period:	30	Average out. Balance:	50%
Mortgage Payment:	$615,644	Cash Flow/Lender:	0.00%
		Residual/Lender:	0.00%

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
LOAN BALANCE	$4,987,661	$4,969,562	$4,949,167	$4,926,186	$4,900,290	$4,871,110	$4,838,229	$4,801,178	$4,759,429	$4,712,384	$4,659,373
AMORTIZATION		$18,099	$20,395	$22,981	$25,896	$29,180	$32,881	$37,051	$41,750	$47,045	$53,011
Total Amortization	$328,288										
INTEREST		$597,545	$595,250	$592,663	$589,749	$586,464	$582,764	$578,594	$573,895	$568,600	$562,633

EXHIBIT D: PROJECTED STATEMENT OF INCOME AND EXPENSES

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
GROSS REVENUES		$547,560	$580,414	$615,238	$652,153	$691,282	$732,759	$776,724	$823,328	$872,727	$925,091
LESS VACANCY RESERVE		$27,378	$29,021	$30,762	$32,608	$34,564	$36,638	$38,836	$41,166	$43,636	$46,255
NET REVENUES		$520,182	$551,393	$584,476	$619,545	$656,718	$696,121	$737,888	$782,161	$829,091	$878,837
LESS OPERATING EXPENSES		$138,329	$143,862	$149,396	$154,929	$160,462	$165,995	$171,528	$177,061	$182,595	$188,128
LESS REPLACEMENT RESERVE		$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000
NET OPERATING INCOME	$0	$336,853	$362,531	$390,081	$419,616	$451,256	$485,126	$521,360	$560,100	$601,497	$645,709
MINUS PROJECT COSTS	$4,987,661	$0									
PLUS SALES PROCEEDS											$6,282,297
CASH FLOW BEFORE DEBT SERVICE	($4,987,661)	$336,853	$362,531	$390,081	$419,616	$451,256	$485,126	$521,360	$560,100	$601,497	$6,928,006

CONSTRUCTION MORTGAGE											
Principal Amount	$4,987,661	($4,987,661)									
Points	$0										
Interest	$0										
PERMANENT MORTGAGE											
Principal Amount		$4,987,661									
Points		$0									
Fixed Debt Service		$615,644	$615,644	$615,644	$615,644	$615,644	$615,644	$615,644	$615,644	$615,644	$615,644
C.F.Before Part.	$0	($278,792)	($253,114)	($225,564)	($196,028)	($164,389)	($130,519)	($94,285)	($55,544)	($14,148)	$6,312,361
		$0	$0	$0	$0	$0	$0	$0	$0	$0	$6,312,361
C.F.Participation		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Debt Payment Upon Sale											$4,659,373
Residual Participation											
TOTAL DEBT SERVICE (debt service,c.f. and residual part.)	$0	$615,644	$615,644	$615,644	$615,644	$615,644	$615,644	$615,644	$615,644	$615,644	$5,275,017
CASH FLOW AFTER DEBT SERVICE	$0	($278,792)	($253,114)	($225,564)	($196,028)	($164,389)	($130,519)	($94,285)	($55,544)	($14,148)	$1,652,989
Debt Coverage Ratio		0.55	0.59	0.63	0.68	0.73	0.79	0.85	0.91	0.98	11.25
Breakeven Occupancy		1.51	1.44	1.37	1.30	1.24	1.18	1.12	1.07	1.02	0.97
Breakeven Occupancy w/ Partner Contribution		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97

EXHIBIT E: AFTER TAX ANALYSIS

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
NET OPERATING INCOME	$0	$336,853	$362,531	$390,081	$419,616	$451,256	$485,126	$521,360	$560,100	$601,497	$645,709
DEDUCTIBLE EXPENSES											
Less: Interest Payments	$0	$597,545	$595,250	$592,663	$589,749	$586,464	$582,764	$578,594	$573,895	$568,600	$562,633
Interest											
Less: Depreciation		$215,085	$215,085	$215,085	$215,085	$215,085	$215,085	$215,085	$215,085	$215,085	$215,085
Construction Period											
Taxes	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Interest	$43,458	$43,458	$43,458	$43,458	$43,458	$43,458	$43,458	$43,458	$43,458	$43,458	$43,458
Leasing/Mkt.	$100,000	$0									

Indirect Expenses											
Legal & Acc't.	$60,000										
Appraisals	$0										
Insurance	$50,000										
Permits	$0										
Consultants	$10,000										
Financing Fees											
Const. Loan Fee	$0										
Const.Loan Points	$0										
Perm. Loan Points	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755
TOTAL DEDUCTIBLE	$271,213	$863,844	$861,548	$858,962	$856,047	$852,763	$849,062	$844,892	$840,193	$834,898	$828,932
PLUS REPLACEMENT RESERVE	($0)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)
TAXABLE INCOME (LOSS)	($271,213)	($481,991)	($454,018)	($423,881)	($391,431)	($356,507)	($318,936)	($278,532)	($235,093)	($188,402)	($138,223)
TAX LIABILITY (50%)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TAX SHELTER (50%)	$135,607	$240,995	$227,009	$211,940	$195,715	$178,253	$159,468	$139,266	$117,547	$94,201	$69,111
CAPITAL GAINS TAX											
Sales Proceeds											$6,282,297
Basis											
Land											$450,000
Building											$1,720,680
Unamortized Expense											
Points											$11,022
Leasing Comissions											$0
Net Gain											$4,100,595
Tax Liability (20%)											$820,119
AFTER-TAX CASH FLOW (Leveraged)											
Without Tax Benefits	$0	($278,792)	($253,114)	($225,564)	($196,028)	($164,389)	($130,519)	($94,285)	($55,544)	($14,148)	$832,870
With Tax Benefits	$135,607	($37,796)	($26,105)	($13,623)	($313)	$13,865	$28,949	$44,981	$62,002	$80,053	$901,981
NET PRESENT VALUE											
Without Tax Benefits	($542,003)										
With Tax Benefits	$479,894										
INTERNAL RATE OF RETURN											
Without Tax Benefits	-8.16%										
With Tax Benefits	N.A.										

EXHIBIT V: FINANCIAL FEASIBILITY WITH A PARTICAPATION MORTGAGE
ALTERNATIVE #3

DEVELOPMENT PROFORMA: CENTRAL SQUARE HOUSING PROJECT

EXHIBIT A: GENERAL INFORMATION

DATE OF PROJECTION:	August 1,1985
PROJECT NAME:	CSR Project
LOCATION:	Cambridge, Ma.
NUMBER OF UNITS:	45
EST. START DATE:	4/1/1988
COMPLETION DATE:	1/1/1990
CONSTRUCTION TIME:	20 months

A. SITE INFORMATION	
Sqaure Footage of Parcel:	27,376
Bld. Gross Sqaure Footage:	47,400
Bld. Net Square Footage:	38,520
Building Efficiency:	81%
No. of Parking Spaces:	45

B. UNIT CHARACTERISTICS	
Number of Units:	45
Total Sq. Feet:	47,400
No. of Studios:	0
Sq. Ft. per unit:	0
No. of (1) bedrm.	9
Sq. Ft. per unit:	660
No. of (2) bedrm.:	36
Sq. ft. per unit:	905
No. of (3) bedrm.:	0
Sq. Ft. per unit:	0

BASIS FOR PROJECTIONS

DEVELOPMENT PHASE

Land	$5,000.00 per unit
Site Improvements	$0.00 per unit
Building Construction	$50,000.00 per unit
	$58.00 per sq. feet
Parking	$5,000.00 per unit
Consultants	$10,000
Architectural & Engineering	3.75% of const. cost
Architectural Supervision	1.25% of const. cost
Development Fee	0.00% of const cost
Legal and Accounting	$60,000
Appraisal Fees	$0
Permits	$0
Marketing/Leasing	$50,000
Insurance during Const.	$50,000
R.E. Taxes during Const.	$50,000
Contingency	$182,962 5% of total costs
Construction Loan Fee	$0
Organizational Costs	$0

OPERATIONS PHASE

MONTHLY REVENUES		
Studio:	$0 per unit	
(1) bedroom:	$820 per unit	
(2) Bedroom:	$1,000 per unit	
(3) bedroom:	$0 per unit	
Parking Spaces:	$50 per space	
TOTAL ANNUAL REVENUES:	$547,560	
ANNUAL EXPENSES		
Administrative	$5,000	
Management:	$27,378	5.00% of revenues
Maintenance:	$10,951	2.00% of revenues
Real Estate Taxes:	$50,000	
Utilities:	$10,000	
(Common Area)		
Utilities:	$0	$0.00 per unit
(Units)		
Security:	$30,000	

Working Capital (Operating Deficits)	$0
Letters of Credit Fees	$0
Commissions	$50,000

SALE:	
Stabilized Cap Rate:	11.0%
Disposition Cap Rate:	9.0%
Sales Expense:	6.0%

TAXATION:	
Ordinary Income:	50%
Capital Gains:	20%

STABILIZED YEAR:	2
HOLDING PERIOD: (years)	10

GENERAL PARTNER RATE OF RETURN	
Before Tax:	10%
After Tax:	25%

LIMITED PARTNER RATE OF RETURN	
After Tax:	25%

CONVENTION: End of Year

FINANCING: Participation Mtg.; lender shares 50% of cash flow and residuals

Water:	$5,000	
TOTAL EXPENSES:	$138,329	$3,073.98 per unit
Replacement Res.	$45,000	

LEASING	
Vacancy Rate: (Annual)	5% of gross revenues
Revenues: Lease-Up Year	100.00% of gross revenues
Reveues:Stabilized Year	100.00% of gross revenues

GROWTH FACTORS:	
Market Rents	6% per annum
Operating Expenses	4% per annum

DISTRIBUTION TO LIMITED PARTNERS	
Percent of Cash Flow:	45%
Percent of Tax Benefits:	45%
Percent of Residuals:	45%

EXHIBIT B: PROJECT COST ESTIMATE

YEAR ITEM COST ESTIMATE	YR. 1 CONSTRUCTION	YR. 2 LEASING	COST PER SQUARE FOOT
Land	$225,000		
Improvements			
Building	$2,749,200	$0	$58.00
Parking	$225,000	$0	$4.75
Site Improvements	$0	$0	$0.00
Arch. & Eng.	$111,533	$0	$2.35
Architectural Supervision	$37,178	$0	$0.78
Total Improvements	$3,347,910	$0	$70.63
Consultants	$10,000		
Legal and Accounting	$60,000	$0	$1.27
Appraisal Fees	$0	$0	$0.00
Permits	$0	$0	$0.00
Marketing/Leasing	$50,000	$0	$1.05
Insurance during Const.	$50,000	$0	$1.05
R.E. Taxes during Const.	$50,000	$0	$1.05
Contingency	$182,962	$0	$3.86
Construction Loan Fee	$0	$0	$0.00
Development Fee	$0	$0	$0.00
Organizational Costs	$0	$0	$0.00
Working Capital (Operating Deficits)	$0	$0	$0.00
Commissions	$50,000		$1.05
Points	$41,332	$0	$0.87
Construction Interest	$365,924	$0	$7.72
Letters of Credit	$0	$0	$0
Total Indirect Costs	$850,218	$0	$17.94
TOTAL ESTIMATED COSTS	$4,198,128	$0	$88.57

EXHIBIT C: MORTGAGE SCHEDULE

Financing Alternative:	4		
Perm. Mortg.Balance:	$4,198,128	Const. Mort. Balance:	$4,198,128
Interest Rate:	10.00%	Construction Interest:	11.00%
Term:	15	Construction Points:	1.00%
Amortization Period:	30	Average out. Balance:	50%
Mortgage Payment:	$442,099	Cash Flow/Lender:	50.00%
		Residual/Lender:	50.00%

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
LOAN BALANCE	$4,198,128	$4,174,792	$4,149,012	$4,120,532	$4,089,070	$4,054,314	$4,015,918	$3,973,502	$3,926,644	$3,874,880	$3,817,695
AMORTIZATION		$23,336	$25,780	$28,480	$31,462	$34,756	$38,396	$42,416	$46,858	$51,764	$57,185
Total Amortization	$380,434										
INTEREST		$418,762	$416,319	$413,619	$410,637	$407,343	$403,703	$399,683	$395,241	$390,335	$384,914

EXHIBIT D: PROJECTED STATEMENT OF INCOME AND EXPENSES

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
GROSS REVENUES		$547,560	$580,414	$615,238	$652,153	$691,282	$732,759	$776,724	$823,328	$872,727	$925,091
LESS VACANCY RESERVE		$27,378	$29,021	$30,762	$32,608	$34,564	$36,638	$38,836	$41,166	$43,636	$46,255
NET REVENUES		$520,182	$551,393	$584,476	$619,545	$656,718	$696,121	$737,888	$782,161	$829,091	$878,837
LESS OPERATING EXPENSES		$138,329	$143,862	$149,396	$154,929	$160,462	$165,995	$171,528	$177,061	$182,595	$188,128
LESS REPLACEMENT RESERVE		$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000
NET OPERATING INCOME	$0	$336,853	$362,531	$390,081	$419,616	$451,256	$485,126	$521,360	$560,100	$601,497	$645,709
MINUS PROJECT COSTS	$4,198,128	$0									
PLUS SALES PROCEEDS											$6,282,297
CASH FLOW BEFORE DEBT SERVICE	($4,198,128)	$336,853	$362,531	$390,081	$419,616	$451,256	$485,126	$521,360	$560,100	$601,497	$6,928,006

CONSTRUCTION MORTGAGE											
Principal Amount	$4,198,128	($4,198,128)									
Points	$0										
Interest	$0										
PERMANENT MORTGAGE											
Principal Amount		$4,198,128									
Points		$0									
Fixed Debt Service		$442,099	$442,099	$442,099	$442,099	$442,099	$442,099	$442,099	$442,099	$442,099	$442,099
C.F.Before Part.	$0	($105,246)	($79,568)	($52,018)	($22,483)	$9,157	$43,027	$79,261	$118,001	$159,398	$6,485,907
		$0	$0	$0	$0	$9,157	$43,027	$79,261	$118,001	$159,398	$2,668,212
C.F.Participation	$0	$0	$0	$0	$0	$4,578	$21,513	$39,630	$59,001	$79,699	$1,334,106
Debt Payment Upon Sale											$3,817,695
Residual Participation											
TOTAL DEBT SERVICE (debt service,c.f. and residual part.)	$0	$442,099	$442,099	$442,099	$442,099	$446,677	$463,612	$481,729	$501,099	$521,798	$5,593,900
CASH FLOW AFTER DEBT SERVICE	$0	($105,246)	($79,568)	($52,018)	($22,483)	$4,578	$21,513	$39,630	$59,001	$79,699	$1,334,106
Debt Coverage Ratio		0.76	0.82	0.88	0.95	1.02	1.10	1.18	1.27	1.36	15.67
Breakeven Occupancy		1.19	1.14	1.08	1.03	0.99	0.94	0.90	0.86	0.82	0.78
Breakeven Occupancy W/ Partner Contribution		1.00	1.00	1.00	1.00	0.99	0.94	0.90	0.86	0.82	0.78

EXHIBIT E: AFTER TAX ANALYSIS

YEAR		1	2	3	4	5	6	7	8	9	10	11
ACTIVITY		Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
NET OPERATING INCOME		$0	$336,853	$362,531	$390,081	$419,616	$451,256	$485,126	$521,360	$560,100	$601,497	$645,709
DEDUCTIBLE EXPENSES												
Less: Interest Payments		$0	$418,762	$416,319	$413,619	$410,637	$407,343	$403,703	$399,683	$395,241	$390,335	$384,914
Interest Contingent interest			$0	$0	$0	$0	$4,578	$21,513	$39,630	$59,001	$79,699	$1,334,106
Less: Depreciation			$185,995	$185,995	$185,995	$185,995	$185,995	$185,995	$185,995	$185,995	$185,995	$185,995
Construction Period Taxes		$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Interest		$36,592	$36,592	$36,592	$36,592	$36,592	$36,592	$36,592	$36,592	$36,592	$36,592	$36,592
Leasing/Mkt.		$100,000	$0									
Indirect Expenses												
Legal & Acc't.		$60,000										
Appraisals		$0										
Insurance		$50,000										
Permits		$0										
Consultants		$10,000										

Financing Fees											
Const. Loan Fee	$0										
Const.Loan Points	$0										
Perm. Loan Points	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755
TOTAL DEDUCTIBLE	$264,348	$649,105	$646,662	$643,962	$640,980	$642,264	$655,560	$669,656	$684,585	$700,376	$1,949,363
PLUS REPLACEMENT RESERVE	($0)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)
TAXABLE INCOME (LOSS)	($264,348)	($267,253)	($239,131)	($208,881)	($176,364)	($146,008)	($125,434)	($103,296)	($79,485)	($53,880)	($1,258,654)
TAX LIABILITY (50%)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TAX SHELTER (50%)	$132,174	$133,626	$119,566	$104,441	$88,182	$73,004	$62,717	$51,648	$39,742	$26,940	$629,327
CAPITAL GAINS TAX											
Sales Proceeds											$6,282,297
Basis											
Land											$225,000
Building											$1,487,960
Unamortized Expense											
Points											$11,022
Leasing Comissions											$0
Net Gain											$4,558,315
Tax Liability (20%)											$911,663
AFTER-TAX CASH FLOW (Leveraged)											
Without Tax Benefits	$0	($105,246)	($79,568)	($52,018)	($22,483)	$4,578	$21,513	$39,630	$59,001	$79,699	$422,443
With Tax Benefits	$132,174	$28,380	$39,997	$52,423	$65,699	$77,583	$84,230	$91,279	$98,743	$106,639	$1,051,770
NET PRESENT VALUE											
Without Tax Benefits	$39,675										
With Tax Benefits	$355,747										
INTERNAL RATE OF RETURN											
Without Tax Benefits	12.81%										
With Tax Benefits	N.A.										

EXHIBIT VI: FINANCIAL FEASIBILITY WITH SHARP AND TAX-EXEMPT FINANCING
ALTERNATIVE #4

DEVELOPMENT PROFORMA: CENTRAL SQUARE HOUSING PROJECT

EXHIBIT A: GENERAL INFORMATION

DATE OF PROJECTION:	August 1, 1985
PROJECT NAME:	CSR Project
LOCATION:	Cambridge, Ma.
NUMBER OF UNITS:	45
EST. START DATE:	4/1/1988
COMPLETION DATE:	1/1/1990
CONSTRUCTION TIME:	20 months

A. SITE INFORMATION	
Sqaure Footage of Parcel:	27,376
Bld. Gross Sqaure Footage:	47,400
Bld. Net Square Footage:	38,520
Building Efficiency:	81%
No. of Parking Spaces:	45

B. UNIT CHARACTERISTICS	
Number of Units:	45
Total Sq. Feet:	47,400
No. of Studios:	0
Sq. Ft. per unit:	0
No. of (1) bedrm.	9
Sq. Ft. per unit:	660
No. of (2) bedrm.:	36
Sq. ft. per unit:	905
No. of (3) bedrm.:	0
Sq. Ft. per unit:	0

BASIS FOR PROJECTIONS

DEVELOPMENT PHASE		
Land	$10,000.00	per unit
Site Improvements	$0.00	per unit
Building Construction	$50,000.00	per unit
	$58.00	per sq. feet
Parking	$5,000.00	per unit
Consultants	$10,000	
Architectural & Engineering	3.75%	of const. cost
Architectural Supervision	1.25%	of const. cost
Development Fee	10.00%	of const cost(SHARP)
Legal and Accounting	$60,000	
Appraisal Fees	$0	
Permits	$0	
Marketing/Leasing	$50,000	
Insurance during Const.	$50,000	
R.E. Taxes during Const.	$50,000	
Contingency	$207,599	5% of total costs
Construction Loan Fee	$0	
Organizational Costs	$0	

OPERATIONS PHASE		
MONTHLY REVENUES		
Studio:	$0	per unit
(1) bedroom:	$820	per unit
(2) Bedroom:	$1,000	per unit
(3) bedroom:	$0	per unit
Parking Spaces:	$50	per space
TOTAL ANNUAL REVENUES:	$547,560	
ANNUAL EXPENSES		
Administrative	$5,000	
Management:	$27,378	5.00% of revenues
Maintenance:	$10,951	2.00% of revenues
Real Estate Taxes:	$50,000	
Utilities:	$10,000	
(Common Area)		
Utilities:	$0	$0.00 per unit
(Units)		
Security:	$30,000	

Working Capital (Operating Deficits)	$0
Bond Issuance Costs	2.00% of total costs
Commissions	$50,000

SALE:	
Stabilized Cap Rate:	11.0%
Disposition Cap Rate:	9.0%
Sales Expense:	6.0%

TAXATION:	
Ordinary Income:	50%
Capital Gains:	20%

STABILIZED YEAR:	2
HOLDING PERIOD: (years)	10

GENERAL PARTNER RATE OF RETURN	
Before Tax:	20%
After Tax:	10%

LIMITED PARTNER RATE OF RETURN	
After Tax:	20%

CONVENTION:	End of Year
FINANCING:	Tax-exempt bonds w/ SHARP subsidy 10%, 30 years

Water:	$5,000	
TOTAL EXPENSES:	$138,329	$3,073.98 per unit
Replacement Res.	$45,000	

LEASING	
Vacancy Rate: (Annual)	5% of gross revenues
Revenues: Lease-Up Year	100.00% of gross revenues
Reveues:Stabilized Year	100.00% of gross revenues

GROWTH FACTORS:	
Market Rents	6% per annum
Operating Expenses	4% per annum

DISTRIBUTION TO LIMITED PARTNERS	
Percent of Cash Flow:	0%
Percent of Tax Benefits:	0%
Percent of Residuals:	0%

EXHIBIT B: PROJECT COST ESTIMATE

YEAR ITEM COST ESTIMATE	YR. 1 CONSTRUCTION	YR. 2 LEASING	COST PER SQUARE FOOT
Land	$450,000		
Improvements			
Building	$2,749,200	$0	$58.00
Parking	$225,000	$0	$4.75
Site Improvements	$0	$0	$0.00
Arch. & Eng.	$111,533	$0	$2.35
Architectural Supervision	$37,178	$0	$0.78
Total Improvements	$3,572,910	$0	$75.38
Consultants	$10,000		
Legal and Accounting	$60,000	$0	$1.27
Appraisal Fees	$0	$0	$0.00
Permits	$0	$0	$0.00
Marketing/Leasing	$50,000	$0	$1.05
Insurance during Const.	$50,000	$0	$1.05
R.E. Taxes during Const.	$50,000	$0	$1.05
Contingency	$207,599	$0	$4.38
Construction Loan Fee	$0	$0	$0.00
Development Fee	$390,958	$0	$8.25
Organizational Costs	$0	$0	$0.00
Working Capital (Operating Deficits)	$0	$0	$0.00
Commissions	$50,000		$1.05
Points	$0	$0	$0.00
Construction Interest	$309,069	$0	$6.52
Bond Issuance Costs	$95,011	$0	$0
Total Indirect Costs	$1,262,636	$0	$24.63
TOTAL ESTIMATED COSTS	$4,835,546	$0	$100.01

EXHIBIT C: MORTGAGE SCHEDULE

Financing Alternative:	2		
Perm. Mortg.Balance:	$4,365,497	Const. Mort. Balance:	$4,365,497
Interest Rate:	10.00%	Construction Interest:	11.00%
Term:	15	Construction Points:	1.00%
Amortization Period:	30	Average out. Balance:	50%
Mortgage Payment:	$459,724	Cash Flow/Lender:	50.00%
		Residual/Lender:	50.00%

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
LOAN BALANCE	$4,365,497	$4,341,230	$4,314,422	$4,284,807	$4,252,091	$4,215,949	$4,176,022	$4,131,915	$4,083,189	$4,029,361	$3,969,896
AMORTIZATION		$24,267	$26,808	$29,615	$32,716	$36,142	$39,926	$44,107	$48,726	$53,828	$59,465
Total Amortization	$395,600										
INTEREST		$435,457	$432,916	$430,109	$427,008	$423,582	$419,798	$415,617	$410,998	$405,896	$400,260

EXHIBIT D: PROJECTED STATEMENT OF INCOME AND EXPENSES

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
GROSS REVENUES		$547,560	$580,414	$615,238	$652,153	$691,282	$732,759	$776,724	$823,328	$872,727	$925,091
LESS VACANCY RESERVE		$27,378	$29,021	$30,762	$32,608	$34,564	$36,638	$38,836	$41,166	$43,636	$46,255
NET REVENUES		$520,182	$551,393	$584,476	$619,545	$656,718	$696,121	$737,888	$782,161	$829,091	$878,837
LESS OPERATING EXPENSES		$138,329	$143,862	$149,396	$154,929	$160,462	$165,995	$171,528	$177,061	$182,595	$188,128
LESS REPLACEMENT RESERVE		$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000
NET OPERATING INCOME	$0	$336,853	$362,531	$390,081	$419,616	$451,256	$485,126	$521,360	$560,100	$601,497	$645,709
MINUS PROJECT COSTS	$4,835,546	$0									
PLUS SALES PROCEEDS											$6,282,297
CASH FLOW BEFORE DEBT SERVICE	($4,835,546)	$336,853	$362,531	$390,081	$419,616	$451,256	$485,126	$521,360	$560,100	$601,497	$6,928,006

CONSTRUCTION MORTGAGE											
Principal Amount	$4,365,497	($4,365,497)									
Points	$0										
Interest	$0										
PERMANENT MORTGAGE											
Principal Amount		$4,365,497									
Points		$0									
Fixed Debt Service		$459,724	$459,724	$459,724	$459,724	$459,724	$459,724	$459,724	$459,724	$459,724	$459,724
C.F.Before Part.	($470,050)	($122,872)	($97,194)	($69,643)	($40,108)	($8,468)	$25,402	$61,636	$100,376	$141,772	$6,468,282
		$0	$0	$0	$0	$0	$25,402	$61,636	$100,376	$141,772	$6,468,282
C.F.Participation		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Debt Payment Upon Sale											$3,969,896
Residual Participation											
TOTAL DEBT SERVICE (debt service,c.f. and residual part.)	$0	$459,724	$459,724	$459,724	$459,724	$459,724	$459,724	$459,724	$459,724	$459,724	$4,429,621
CASH FLOW AFTER DEBT SERVICE AND EQUITY	($470,050) ($79,092)	($122,872)	($97,194)	($69,643)	($40,108)	($8,468)	$25,402	$61,636	$100,376	$141,772	$2,498,385
Maximum Publi Subsidy	$178,505										
Minus Rental Assistance	$0	$55,788	$55,788	$55,788	$55,788	$55,788	$55,788	$55,788	$55,788	$55,788	$55,788
Plus Public Subsidy		$178,505	$178,505	$153,634	$124,099	$92,459	$58,589	$0	$0	$0	$0
(Accrued SHARP p. & i.)		$187,430	$384,232	$564,760	$723,302	$856,549	$960,896	$1,008,940	$1,059,387	$1,095,153	$1,089,240
Sharp Repayment		$0	$0	$0	$0	$0	$0	$0	$1,043,003	$1,037,372	$1,089,240
CASH FLOW AFTER PUBLIC SUBSIDY AND RENT.ASSIST.	($79,092)	($154)	$25,523	$28,203	$28,203	$28,203	$28,203	$5,848	$28,203	$28,203	$1,353,357
Debt Coverage Ratio		1.00	1.06	1.06	1.06	1.06	1.06	1.01	1.10	1.19	14.95
Breakeven Occupancy		1.00	0.96	0.96	0.96	0.96	0.96	0.99	0.94	0.89	0.85
Breakeven Occupancy w/ Partner Contribution		1.00	0.96	0.96	0.96	0.96	0.96	0.99	0.94	0.89	0.85

EXHIBIT E: AFTER TAX ANALYSIS

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
NET OPERATING INCOME	$0	$281,065	$306,743	$334,293	$363,828	$395,468	$429,338	$465,572	$504,312	$545,709	$589,921
DEDUCTIBLE EXPENSES											
Less: Interest Payments	$0	$435,457	$432,916	$430,109	$427,008	$423,582	$419,798	$415,617	$410,998	$405,896	$400,260
Interest											
Less: Depreciation		$198,495	$198,495	$198,495	$198,495	$198,495	$198,495	$198,495	$198,495	$198,495	$198,495
Construction Period											
Taxes	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Interest	$30,907	$30,907	$30,907	$30,907	$30,907	$30,907	$30,907	$30,907	$30,907	$30,907	$30,907

Leasing/Mkt.	$100,000	$0									
Indirect Expenses											
Legal & Acc't.	$60,000										
Appraisals	$0										
Insurance	$50,000										
Permits	$0										
Consultants	$10,000										
Financing Fees											
Const. Loan Fee	$0										
Const.Loan Points	$0										
Perm. Loan Points	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL DEDUCTIBLE	$255,907	$669,859	$667,318	$664,511	$661,410	$657,984	$654,200	$650,019	$645,400	$640,298	$634,662
PLUS REPLACEMENT RESERVE	($0)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)
TAXABLE INCOME (LOSS)	($255,907)	($343,795)	($315,576)	($285,218)	($252,582)	($217,516)	($179,862)	($139,447)	($96,088)	($49,590)	$259
TAX LIABILITY (50%)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$130
TAX SHELTER (50%)	$127,953	$171,897	$157,788	$142,609	$126,291	$108,758	$89,931	$69,724	$48,044	$24,795	$0
CAPITAL GAINS TAX											
Sales Proceeds											$6,282,297
Basis											
Land											$450,000
Building											$1,587,960
Unamortized Expense											
Points											$0
Leasing Comissions											$0
Net Gain											$4,244,337
Tax Liability (20%)											$848,867
AFTER-TAX CASH FLOW (Leveraged)											
Without Tax Benefits	($79,092)	($154)	$25,523	$28,203	$28,203	$28,203	$28,203	$5,848	$28,203	$28,203	$1,353,227
With Tax Benefits	$48,862	$171,743	$183,311	$170,812	$154,494	$136,961	$118,134	$75,571	$76,247	$52,998	$1,353,227
NET PRESENT VALUE											
Without Tax Benefits	$184,514										
With Tax Benefits	$1,236,930										
INTERNAL RATE OF RETURN											
Without Tax Benefits	42.67%										
With Tax Benefits	N.A.										

EXHIBIT VII: FINANCIAL FEASIBILITY WITH TELLER BONDS
ALTERNATIVE #6

DEVELOPMENT PROFORMA: CENTRAL SQUARE HOUSING PROJECT

EXHIBIT A: GENERAL INFORMATION

DATE OF PROJECTION:	August 1,1985
PROJECT NAME:	CSR Project
LOCATION:	Cambridge, Ma.
NUMBER OF UNITS:	45
EST. START DATE:	4/1/1988
COMPLETION DATE:	1/1/1990
CONSTRUCTION TIME:	20 months

A. SITE INFORMATION	
Sqaure Footage of Parcel:	27,376
Bld. Gross Sqaure Footage:	47,400
Bld. Net Square Footage:	38,520
Building Efficiency:	81%
No. of Parking Spaces:	45

B. UNIT CHARACTERISTICS	
Number of Units:	45
Total Sq. Feet:	47,400
No. of Studios:	0
Sq. Ft. per unit:	0
No. of (1) bedrm.	9
Sq. Ft. per unit:	660
No. of (2) bedrm.:	36
Sq. ft. per unit:	905
No. of (3) bedrm.:	0
Sq. Ft. per unit:	0

BASIS FOR PROJECTIONS

DEVELOPMENT PHASE	
Land	$5,000.00 per unit
Site Improvements	$0.00 per unit
Building Construction	$50,000.00 per unit
	$58.00 per sq. feet
Parking	$5,000.00 per unit
Consultants	$10,000
Architectural & Engineering	3.75% of const. cost
Architectural Supervision	1.25% of const. cost
Development Fee	0.00% of const cost
Legal and Accounting	$60,000
Appraisal Fees	$0
Permits	$0
Marketing/Leasing	$50,000
Insurance during Const.	$50,000
R.E. Taxes during Const.	$50,000
Contingency	$178,396 5% of total costs
Construction Loan Fee	$0
Organizational Costs	$0

OPERATIONS PHASE		
MONTHLY REVENUES		
Studio:	$0 per unit	
(1) bedroom:	$820 per unit	
(2) Bedroom:	$1,000 per unit	
(3) bedroom:	$0 per unit	
Parking Spaces:	$50 per space	
TOTAL ANNUAL REVENUES:	$547,560	
ANNUAL EXPENSES		
Administrative	$5,000	
Management:	$27,378	5.00% of revenues
Maintenance:	$10,951	2.00% of revenues
Real Estate Taxes:	$50,000	
Utilities:	$10,000	
(Common Area)		
Utilities:	$0	$0.00 per unit
(Units)		
Security:	$30,000	

Working Capital (Operating Deficits)	$0
Bond Issuance Costs	7.00% of total costs
Commissions	$50,000

SALE:	
Stabilized Cap Rate:	11.0%
Disposition Cap Rate:	9.0%
Sales Expense:	6.0%

TAXATION:	
Ordinary Income:	50%
Capital Gains:	20%

STABILIZED YEAR:	2
HOLDING PERIOD: (years)	10

GENERAL PARTNER RATE OF RETURN	
Before Tax:	20%
After Tax:	10%

LIMITED PARTNER RATE OF RETURN	
After Tax:	20%

CONVENTION: End of Year

FINANCING: Tax-exempt TELLER bonds, 8%
30 years

Water:	$5,000	
TOTAL EXPENSES:	$138,329	$3,073.98 per unit
Replacement Res.	$45,000	

LEASING	
Vacancy Rate: (Annual)	5% of gross revenues
Revenues: Lease-Up Year	100.00% of gross revenues
Reveues:Stabilized Year	100.00% of gross revenues

GROWTH FACTORS:	
Market Rents	6% per annum
Operating Expenses	4% per annum

DISTRIBUTION TO LIMITED PARTNERS	
Percent of Cash Flow:	39%
Percent of Tax Benefits:	39%
Percent of Residuals:	39%

EXHIBIT B: PROJECT COST ESTIMATE

YEAR ITEM COST ESTIMATE	YR. 1 CONSTRUCTION	YR. 2 LEASING	COST PER SQUARE FOOT
Land	$225,000		
Improvements			
Building	$2,749,200	$0	$58.00
Parking	$225,000	$0	$4.75
Site Improvements	$0	$0	$0.00
Arch. & Eng.	$111,533	$0	$2.35
Architectural Supervision	$37,178	$0	$0.78
Total Improvements	$3,347,910	$0	$70.63
Consultants	$10,000		
Legal and Accounting	$60,000	$0	$1.27
Appraisal Fees	$0	$0	$0.00
Permits	$0	$0	$0.00
Marketing/Leasing	$50,000	$0	$1.05
Insurance during Const.	$50,000	$0	$1.05
R.E. Taxes during Const.	$50,000	$0	$1.05
Contingency	$178,396	$0	$3.76
Construction Loan Fee	$0	$0	$0.00
Development Fee	$0	$0	$0.00
Organizational Costs	$0	$0	$0.00
Working Capital (Operating Deficits)	$0	$0	$0.00
Commissions	$50,000		$1.05
Points	$41,332	$0	$0.87
Construction Interest	$309,069	$0	$6.52
Bond Issuance Costs	$290,269	$0	$0
Total Indirect Costs	$1,079,066	$0	$16.64
TOTAL ESTIMATED COSTS	$4,426,976	$0	$87.27

EXHIBIT C: MORTGAGE SCHEDULE

Financing Alternative:	2		
Perm. Mortg.Balance:	$4,426,976	Const. Mort. Balance:	$4,426,976
Interest Rate:	8.00%	Construction Interest:	11.00%
Term:	15	Construction Points:	1.00%
Amortization Period:	30	Average out. Balance:	50%
Mortgage Payment:	$389,803	Cash Flow/Lender:	50.00%
		Residual/Lender:	50.00%

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
LOAN BALANCE	$4,426,976	$4,389,995	$4,349,944	$4,306,569	$4,259,594	$4,208,720	$4,153,623	$4,093,954	$4,029,332	$3,959,346	$3,883,552
AMORTIZATION		$36,981	$40,051	$43,375	$46,975	$50,874	$55,097	$59,670	$64,622	$69,986	$75,794
Total Amortization	$543,424										
INTEREST		$352,822	$349,752	$346,428	$342,828	$338,929	$334,706	$330,133	$325,181	$319,817	$314,009

EXHIBIT D: PROJECTED STATEMENT OF INCOME AND EXPENSES

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
GROSS REVENUES		$547,560	$580,414	$615,238	$652,153	$691,282	$732,759	$776,724	$823,328	$872,727	$925,091
LESS VACANCY RESERVE		$27,378	$29,021	$30,762	$32,608	$34,564	$36,638	$38,836	$41,166	$43,636	$46,255
NET REVENUES		$520,182	$551,393	$584,476	$619,545	$656,718	$696,121	$737,888	$782,161	$829,091	$878,837
LESS OPERATING EXPENSES		$138,329	$143,862	$149,396	$154,929	$160,462	$165,995	$171,528	$177,061	$182,595	$188,128
LESS REPLACEMENT RESERVE		$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000
NET OPERATING INCOME	$0	$336,853	$362,531	$390,081	$419,616	$451,256	$485,126	$521,360	$560,100	$601,497	$645,709
MINUS PROJECT COSTS	$4,426,976	$0									
PLUS SALES PROCEEDS											$6,282,297
CASH FLOW BEFORE DEBT SERVICE	($4,426,976)	$336,853	$362,531	$390,081	$419,616	$451,256	$485,126	$521,360	$560,100	$601,497	$6,928,006

CONSTRUCTION MORTGAGE											
Principal Amount	$4,426,976	($4,426,976)									
Points	$0										
Interest	$0										
PERMANENT MORTGAGE											
Principal Amount		$4,426,976									
Points		$0									
Fixed Debt Service		$389,803	$389,803	$389,803	$389,803	$389,803	$389,803	$389,803	$389,803	$389,803	$389,803
C.F.Before Part.	$0	($52,950)	($27,272)	$278	$29,813	$61,453	$95,323	$131,557	$170,297	$211,694	$6,538,203
		$0	$0	$278	$29,813	$61,453	$95,323	$131,557	$170,297	$211,694	$6,538,203
C.F.Participation		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Debt Payment Upon Sale											
Residual Participation											$3,883,552
TOTAL DEBT SERVICE (debt service,c.f. and residual part.)	$0	$389,803	$389,803	$389,803	$389,803	$389,803	$389,803	$389,803	$389,803	$389,803	$4,273,355
CASH FLOW AFTER DEBT SERVICE	$0	($52,950)	($27,272)	$278	$29,813	$61,453	$95,323	$131,557	$170,297	$211,694	$2,654,651
Minus Rental Assistance Plus Public Subsidy	$0	$30,720	$30,720	$30,720	$30,720	$30,720	$30,720	$30,720	$30,720	$30,720	$30,720
CASH FLOW AFTER PUBLIC SUBSIDY AND RENT. ASSISTANCE		($83,670)	($57,992)	($30,442)	($907)	$30,733	$64,603	$100,837	$139,577	$180,974	$2,623,931
Debt Coverage Ratio		0.79	0.85	0.92	1.00	1.08	1.17	1.26	1.36	1.46	1.61
Breakeven Occupancy		1.16	1.11	1.05	1.00	0.95	0.91	0.86	0.82	0.79	0.75
Breakeven Occupancy w/ Partner Contribution		1.00	1.00	1.00	1.00	0.95	0.91	0.86	0.82	0.79	0.75

EXHIBIT E: AFTER TAX ANALYSIS

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
NET OPERATING INCOME	$0	$306,133	$331,811	$359,361	$388,896	$420,536	$454,406	$490,640	$529,380	$570,777	$614,989
DEDUCTIBLE EXPENSES											
Less: Interest Payments	$0	$352,822	$349,752	$346,428	$342,828	$338,929	$334,706	$330,133	$325,181	$319,817	$314,009
Interest											
Less: Depreciation		$185,995	$185,995	$185,995	$185,995	$185,995	$185,995	$185,995	$185,995	$185,995	$185,995
Construction Period											
Taxes	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Interest	$30,907	$30,907	$30,907	$30,907	$30,907	$30,907	$30,907	$30,907	$30,907	$30,907	$30,907
Leasing/Mkt.	$100,000	$0									

Indirect Expenses											
Legal & Acc't.	$60,000										
Appraisals	$0										
Insurance	$50,000										
Permits	$0										
Consultants	$10,000										
Financing Fees											
Const. Loan Fee	$0										
Const.Loan Points	$0										
Perm. Loan Points	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755	$2,755
TOTAL DEDUCTIBLE	$258,662	$577,479	$574,410	$571,085	$567,485	$563,586	$559,364	$554,791	$549,838	$544,475	$538,666
PLUS REPLACEMENT RESERVE	($0)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)	($45,000)
TAXABLE INCOME (LOSS)	($258,662)	($226,346)	($197,599)	($166,724)	($133,589)	($98,050)	($59,958)	($19,151)	$24,542	$71,302	$121,323
TAX LIABILITY (50%)	$0	$0	$0	$0	$0	$0	$0	$0	$12,271	$35,651	$60,661
TAX SHELTER (50%)	$129,331	$113,173	$98,799	$83,362	$66,794	$49,025	$29,979	$9,575	$0	$0	$0
CAPITAL GAINS TAX											
Sales Proceeds											$6,282,297
Basis											
Land											$225,000
Building											$1,487,960
Unamortized Expense											
Points											$11,022
Leasing Comissions											$0
Net Gain											$4,558,315
Tax Liability (20%)											$911,663
AFTER-TAX CASH FLOW (Leveraged)											
Without Tax Benefits	$0	($83,670)	($57,992)	($30,442)	($907)	$30,733	$64,603	$100,837	$127,306	$145,323	$2,563,270
With Tax Benefits	$129,331	$60,223	$71,527	$83,640	$96,608	$110,478	$125,302	$141,132	$158,026	$176,043	$1,682,327

NET PRESENT VALUE	
Without Tax Benefits	$338,192
With Tax Benefits	$1,255,234
INTERNAL RATE OF RETURN	
Without Tax Benefits	44.55%
With Tax Benefits	N.A.

NOTES

1. Interview with Donald Tofias of Central Plaza Realty Trust on May 16, June 20 and July 19,1985.

2. Letter from Stephen I. Burr of Herrick and Smith to Arnold B. Tofias, June 10,1985.

3. Interview with Donald Tofias, June, 20,1985.

4. Interview with Fred Kramer of ADD, Inc., June 22,1985.

5. Telephone interview with Anne Whittington, Program Officer, Cambridge Community Development Department, August 3,1985.

6. Telephone interview with Anne Whittington, August 3,1985.

7. Interview with Michael Rosenberg, Assistant Director for Housing, Cmabridge Community Development Department, June 26,1985.

8. Interivews with the following brokers: a) Helen Moulton of Ellis and Andrews, July 30,1985; b) Davis Rally of with Hunaman, July 15,1985; c) Brendan Noonan, July 28,1985; and 4) O'Neil Ingram and Tod Beatty of Ingram, Rettig and Beatty, July 23, 1985.

9. Telephone interview with Susan Theil of the Cambridge Rent Control Office, July 28,1985.

10. Interview with Joseph Antenelli, Senior Site Evaluation Officer of Massachusetts Housing Financing Agency, July 11, 1985.

11. Interview with Leslie Watt, Project Manager for the Winn Development Company, July 9, 1985.

12. Interviews with: 1) Helen Moulton, July 30,1985; 22) Davis Rally, July 15,1985; 3) Brendan Noonan, July 28,1985 and 4) Tod Beatty, July 23, 985.

13. Letter from Stephen I. Burr of Herrick and Smith to Arnold B. Tofias, June 10,1985 and telephone interview with Donald Tofias, August 13,1985.

14. Telephone interview with Anne Whittington, August 3,1985.

15. Interview with Bobert Mervis, Staff Director of the Cambridge Rent Control Office, July 19,1985.

16. Cambridge Election Commission, Rules for Counting Ballots under Proportional Representation, City of Cambridge, 1941.

17. Interview with Robert Mervis, July 19,1985.

18. Interview with Donald Tofias and members of the Neighborhood Four Coalition, July 10,1985.

19. Interview with Leslie Watt, July 9,1985.

20. Telephone interviews with Kent Hitechew, Assistant Vice President, Drexel Burnham Lambert, Inc., July 15, 1985 and David Smith, Vice President, Boston Financial Technology Group, August 5,1985.

21. Telephone interview with Kent Hitechew, July 15, 1985.

22. Telephone interview with Kent Hitechew, August 1,1985 and David Smith, August 5,1985.

23. Telephone Interview with David Smith, August 8,1985.

24. Telephone interview with Tony Wallace, Multifamily Representative, Department of Housing and Urban Development Area Office, July 19,1985.

25. Interview with Mark Williams, Mulitfamily Housing Consultant, June 29, 1985.

26. Interview with Mark Williams, June 29, 1985.

27. The following sources were used for this section: a) telephone interviews with Paul Burbine, Director of Finance, Massachussetts Housibf Finance Agency, July 17 and August 1, 1985; b) Interview with Mark Williams on July 14, July 29 and August 6, 1985; c) Massachussetts Housing Finance Agency, Program Guidelines, State Housing Assistance for Rental Production, January 25,1985.

28. The following sources were used for this section: a) Telephone interviews with Mark Draiser, Program Representative, Executive Office of Communities and Development, July 7, 1985 and July 25,1985; b) Interviews with Mark Williams July 26; c) Executive Office of Communtiies and Development, Tax exempt Local Loans to Encourage Rental Housing Program, April 19,1985.

29. Telephone interview with Kent Hitechew, July 15, 1985.

30. Telephone interview with Kent Hitechew, August 1,1985.

31. Telephone Interview with David Smith, August 6, 1985 and Mark Williams, July 28,1985.

32. Telephone interview with Stephen Wasco, Director of Multifamily Housing, Department of Housing and Urban Development, August 8,1985.

33. Telephone interview with Kent Hitechew, August 3,1985.

34. Interview with Mark Williams, July 18,1985.

35.The following source was used for this section: telephone interview with Paul Burbine, August 2,1985.