Concord Square Planning & Development, Inc.





### **Nichewaug Inn and Academy Property** Petersham, MA

### **Market and Feasibility Analysis**

- **Concord Square Planning & Development, Inc.**
- **Bonz & Associates Market Analysis** •
- **Albert Righter & Tittmann Architects** •
- **Douglas MacLeay Civil Engineering** •

294 Washington Street, Suite 415, Boston, MA 02108 617-482-1997 www.concordsqdev.com

Water Supply and Septic

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Nichewaug Inn – Market and Feasibility Analysis October 31, 2016

# Tab / Section

#1

# Narrative

### Concord Square Planning & Development, Inc.

### Narrative Report Nichewaug Inn and Academy October 12, 2016 Revised 10-31-16

### Executive Summary

The Nichewaug Inn and Academy Buildings are located on 6.6 acres at the north end of the Petersham Village Center. The original building was constructed in 1899, and has had subsequent modifications. The property has been vacant for over thirty years, with a succession of owners. None of the owners were able to find a financially viable option for redeveloping the buildings and returning them to productive use.

The town acquired the property in 2007. Since that time the buildings have continued to deteriorate, and currently are a significant negative influence, depressing property values, on the Town's Village Center, which otherwise consists of many beautiful, historic structures. The current situation is not acceptable and steps to address the problem are necessary. Concord Square was engaged in March, 2016 to undertake a feasibility and market analysis in order to provide guidance to the Town on the most feasible and practical next steps for dealing with the property.

A series of four public meetings have been held at the Town Hall – on April 13<sup>th</sup>, May 23<sup>rd</sup>, September 7<sup>th</sup>, and October 6<sup>th</sup>. In addition, numerous conversations and evaluations have taken place. In addition to Concord Square, other team members include **Albert Righter & Tittmann**, Architects; **Bonz and Associates**, for the market study; and **Douglas MacLeay** for civil engineering, focused on the issues of water supply and septic disposal. This report consists of this Executive Summary, the following narrative, a PowerPoint presentation, an extensive financial analysis of development options, a Market Analysis, and a description of the situation with regard to water supply and septic disposal.

Petersham is a charming rural community with approximately 1,250 residents and 450 households. It is located east of the Quabbin Reservoir, and about 30 miles from Greenfield, Amherst, Fitchburg and Leominster, and Worcester. It is lovely, with many beautiful restored historic homes, and very little in the way of commercial development. The nature of the community and its isolation from population and employment centers means that the real estate and other markets are relatively weak compared to the parts of Massachusetts closer to Boston, or closer to Amherst and Northampton. As a result, the Bonz Market Study concludes that it is unlikely that market rate rental housing, retail, office, restaurant, hotel or hospitality uses would

be financially viable. The conclusion of the report is that "the achievable rental rates for any of these uses would not be sufficient to cover the redevelopment costs." There are also difficulties with using the State and Federal Historic Tax Credit programs for renovation into rental housing, which are discussed in more detail in subsequent portions of this report.

Accordingly, this report has focused on redevelopment concepts that involve the sale of housing units either as condominiums, single family homes, and / or townhouses. The Bonz Report concludes, based on recent actual sales in the last twelve months in Petersham, Hubbardston, New Salem, Hardwick, and Phillipston, that the sale prices of both condominiums and single family homes would be in the range of \$165 to \$175 per square foot.

Various demolition options have been considered, including the demolition of the so-called "Connector" building, of the Academy Building, of the kitchen wing of the Inn, the dining wing of the Inn, the Mother Superior addition to the Inn at the southern end, and demolition of all the buildings on the site.

Six redevelopment options have been analyzed. Albert Righter and Tittmann, the architectural firm, has produced conceptual site and buildings plans for each of the first four options. The building plans show unit sizes and whether they are one bedroom or two bedroom units. The six options analyzed are:

Option 1 – redevelopment of the Inn and the Academy Building into 29 housing units;

Option 2 – redevelopment of the Inn into 15 new units; demolition of the other buildings;

Option 3 – partial demolition; 9 renovated units in the Inn, and three new single family homes;

Option 4 - total demolition; construction of 4 single family homes

Option 5 – total demolition; construction of 15 new two bedroom townhouses

Option 6 – Retain the Inn and redevelop into rental housing, using tax credits and a new Workforce Housing Program from Mass Housing

In addition, water and septic issues have been considered for each option. Some of the options require an off-site water supply, the feasibility of which is uncertain.

A pro forma with sources and uses of funds has been created for each Option. Based on what are considered reasonable construction costs, only Options 5 and 6 appear to be marginally financially feasible using the sale prices determined by the Bonz analysis, even when increasing the figures by 10% to reflect the potentially higher values because of the overall quality of the Petersham Village Center and the possible passage of time before construction is completed and sales actually take place. This is shown as Analysis A.

Accordingly, an Analysis B was prepared in which the sales prices were increased in order to have the transactions yield a profit to the developer of 18% to 20%. This quantifies the assumptions required to achieve feasibility. The results from these analyses are summarized in the PowerPoint Presentation, and shown in detail in the Financial Analysis.

Given the difficulty in achieving feasibility for any of the Options, it is a conclusion of this Report that the Town must pay for having the environmental cleanup done on the site, and also must pay for much of the demolition required for whichever option is determined to be most advantageous for the Town.

Based on these assumptions and analyses, a cost benefit analysis for the town has been prepared for both Analysis A and Analysis B for each of the six options. The analysis includes as costs to the Town the anticipated debt service on the environmental hazards remediation and demolition costs, plus the cost of educating the estimated number of school aged children. These costs are off-set by projected property tax revenues. The results are as follows:



#### Net Gain To Town

It is clear from the above that from a financial point of view (there are, of course, other considerations), the best choice for the Town would be Option 1 which involves the renovation of both the Academy Building and the Inn, and which also would require an off-site well, the feasibility of which is unknown. Option 2 holds the prospect of being potentially close to breakeven for the Town.

However, the feasibility analyses indicate that in order for Options 1 or 2 to be financially feasible, some combination of lower construction and soft costs, and higher sales prices than those estimated by the Bonz report will be necessary.

In this regard, a key question is to what extent can or could sales prices be higher than those estimated by the Bonz Report. The Report was based, as noted above, on actual sales in Petersham and nearby communities over the prior twelve months. It also looked at all sales since the year 2000. As a result, it provides an accurate picture of what has actually sold.

However, there are several factors which suggest that an imaginative and high quality renovation of the Nichewaug Inn and the Academy Building, coupled with creative financing, might make it possible to have a feasible project, in which sale prices higher than those in the Bonz study could be achieved:

- 1. There have been no comparable properties for sale in the region over the period that has been analyzed. In other words, there are no sales that could be considered "comparable sales" to what might be developed;
- 2. There are four sources of demand that could find the proposed condominiums at the Nichewaug Site attractive, and therefore be willing to pay higher prices:
  - a. Faculty, and the parents of students at Eagle Hill School, ten miles away in Hardwick;
  - b. Staff of the proposed new Quabbin Retreat treatment center of Heywood Hospital in Gardner. The treatment center is located only a few miles from the site;
  - c. Visitors and others associated with the Insight Meditation Center in Barre; and
  - d. Current residents of Petersham who would like to downsize. In some cases, these individuals or couples may require financial assistance that would need to be built into the financing.

A national market study of cell phone demand in 2007 would have focused on the Blackberry and other comparable phones. Such a study would likely (unless done by Apple) have completely missed the potential demand for the iPhone, which was introduced that year, and which since has fully eclipsed the Blackberry-type phones. Similarly, since there are no comparable properties in the region, and no sales comparable to what could be developed at the Nichewaug site, it does not appear reasonable to limit one's thinking to the proposed sale prices in the Bonz study.

However, it will take a good deal of work, time and expense to adequately assess what that demand might be. It will require more detailed plans, specifics in terms of common areas and activities, a description of finishes, and accurate cost estimates. The potential market needs to be identified, and then the plan designed to meet the requirements of that specific market. All of this, which will be time consuming and costly, must be done in order to determine whether it might be feasible to develop Option 1 or Option 2 - or the other alternatives, for that matter.

#### Accordingly, the recommendations of this report are as follows:

- 1. The Town should move forward to carry out the necessary environmental clean-up of the site and demolish the Connector Building in accordance with the bids received in 2015. It is understood that the low bidder is prepared to move forward on the basis of the 2015 bid;
- 2. Authorize a Request for Development Proposals for the Site. This request should not limit proposals to any of the Options reviewed in this analysis, but should invite potential respondents to be creative in developing a plan which the developer believes can be economically feasible;
- **3.** Appoint a Nichewaug Property Committee to review the proposals that are received and make recommendations to the Selectboard.
- 4. The Town should be prepared to pay for the demolition of the remaining existing buildings on the site as needed by the development proposal that may be accepted by the Town, so that, absent a better offer, the site could be sold to the Developer for \$1.00. The town's demolition costs would then be offset over time by future real estate tax revenue from the property.

This following pages contain a discussion in more detail of various issues studied and considered by the Report Team.

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#### Topics

1. Potential Uses of the Site and Preliminary Assessments

#### 1.1. Housing

#### 1.1.1. Single Family Homes

### Information from the Public Information Meetings, Focus Group Meetings, Emails, and online Feedback:

In the last several years, the Planning Board has considered what would make sense for the site starting with a blank slate. They evaluated the existing patterns of development and home construction in the Village Center. The finding from this evaluation was that the average lot size was about 25,000 square feet, with frontage of 90 feet. Using this metric for the layout of the Nichewaug site results in the layout of 4 single family building lots fronting on Common Street.

#### The consulting team's assessments:

This has been included as Option 4 in the analysis. The market analysis has identified the potential for sale of these lots, both in terms of sales velocity (how long it would take to sell four lots), and the potential sale price of the lots.

It is likely to be the case, according to Doug MacLeay, that each lot could be served by its own well and its own septic field. If this were to be the case, the Library could be granted an easement for a portion of the site to the west of the Library for a septic field, and it might be able to put a new well in front of the Library, between it and Common Street.

However, it is likely to be more practical to have one well for the four homes, and a common septic field. The Library could be one of the uses of both the well and the septic field.

A further option would be for allowing two to four additional homes to be built along the South side of the access driveway into the site.

#### 1.1.2.Rental Housing

### Information from the Public Information Meetings, Focus Group Meetings, Emails, and online Feedback:

Each of our presentations to the citizens and officials of Petersham has started with a discussion of rental housing and the prospect of using State and Federal Historic Tax Credits. The tax credits can only be used with rental housing, they are not available for use with homeownership, such as would be the case with condominiums.

#### The consulting team's assessments:

Concord Square and Joanne Shelton from Bonz & Company have done market studies on rental housing in recent years in Greenfield, Fitchburg, Northampton, Worcester, and

Southbridge. These communities surround Petersham to the North, South, East and West. As a result, we have a very good idea of the rent levels in these communities.

Petersham is isolated from the adjacent population centers, has a population of 1,234 (2010) and despite the village center being charming, exquisite, and in many ways unchanged over the last 100 years, it does not have a commercial town center as such centers are typically understood, with a collection of shops and services.

As a result, without doing additional market studies, we can conclude with a high degree of certainty that market rate rents in Petersham will be lower than the rents in Greenfield, Northampton, and Worcester.

It is also clear that regardless of rent levels, the depth of demand in Petersham is shallow. Because of the limited population, the distance from major highways, the distance from public transportation and the distance from jobs, demand will be limited. Petersham is a case of "if you build it, they probably will NOT come". Nice apartments could be built and simply sit empty regardless of how low the rent was set.

Concord Square has prepared financial pro formas for actual rental housing projects in Greenfield, Northampton, Springfield, Worcester and Fitchburg that have been used for Tax Credit Applications for State and Federal Historic and New Market Tax Credits. This work has made it abundantly clear that rental housing proposals involving major renovation work are not feasible using just the State and Federal Historic Tax credits unless rents are as high as in the best locations in Northampton and Amherst – on the order of \$1,400 for one bedroom units and \$1,800 per unit for two bedroom units.

Since it is clear that rents at these levels **cannot** be achieved in Petersham, regardless of the quality of the housing provided, we conclude that market rate rental housing is not a viable option in Petersham.

Rental Housing could be feasible provided there were sufficient subsidies available, such as from the Low Income Housing Tax Credit Program. However, the LIHTC subsidies are in short supply, and are unlikely to be available in Petersham (see below for more discussion on this issue).

However, we have prepared an Option 6 in the analysis which includes a pro forma in which the additional subsidy required is provided by a new program at Mass Housing for Workforce Housing. Please see the PowerPoint presentation for a discussion of the overall feasibility of this approach, and the problems involved.

Our conclusion is that rental housing as a form of ownership is not likely to be a feasible option, and our analytical efforts have therefore been primarily concentrated on the ownership of single family homes, townhouses, or a condominium form of ownership.

#### 1.1.3.Senior Housing

(Market rate or affordable, targets senior people in town and/or from the region)

## Information from the Public Information Meetings, Focus Group Meetings, Emails, and online Feedback:

Many seniors in Petersham are looking to downsize, but there are few if any workable alternatives in town. In the past several years, there have been 3-4 seniors (senior households) who moved to Athol because they could not afford to stay in their previous houses in Petersham. A survey conducted by the Petersham Committee found that many seniors in town find it inconvenient to live in and maintain their current big houses, and are willing and would like to downsize their living accommodations and remain in Petersham.

It was suggested that the new senior housing should give priority to people in town. It was also suggested that the new housing should be affordable, otherwise some town residents won't be able to afford it.

#### The consulting team's assessment:

It is a clear priority to take care of the needs of the town residents. In addition, local needs generate the true local demand. Demographic data shows a higher percentage of seniors in Petersham compared to State-wide averages. Many of the elderly are looking to downsize from large houses that are expensive to heat and maintain. Some could benefit from community living which might be able to provide options such as meals, health care, community activities, etc. Accordingly, housing for seniors is clearly a viable option, and potentially the most significant local demand from a real estate point of view.

In terms of affordability, the development of affordable housing requires significant subsidies from the Low Income Housing Tax Credit program, the HUD Section 202 program, and / or other sources of funds. In general, obtaining the allocation of the subsidy source is highly competitive, and typically requires, at best, a long waiting period.

In addition, Petersham is disadvantaged when competing for such subsidies because of its low density, low population, and no downtown commercial center with a concentration of services and shops. Therefore, it is not likely to score highly in requests for scarce subsidy resources when competing with places like downtown Athol or downtown Orange – which in themselves are not large communities. Therefore, we believe it would be very difficult and time consuming (a multiple year effort), if not impossible, for this project to receive affordable housing subsidies sufficient to provide the financing for the Nichewaug.

Thus, it is not likely to be feasible to develop the project as an "affordable" project. Most of the units will need to be market rate. However, creative thinking may result in approaches that could provide for affordability for some of the units.

For instance, if the overall project was targeted to but not exclusively for the elderly it would be possible for an individual or a group of individuals to purchase multiple units and then lease them to residents at affordable rents. We understand that this option has been discussed in the Community and bears further exploration.

#### 1.1.4. Seasonal/vacation housing or other alternatives to single family dwelling in town

### Information from the Public Information Meetings, Focused Group Meetings, Emails, and online Feedback:

There is a potential market demand for week-end / vacation housing. This type of housing echoes the Town's history when many were drawn to the open rural landscape, country air, and tranquility of the area. Such market demand appears to have, in fact, inspired the construction of the Nichewaug Inn in 1899.

#### The consulting team's assessment:

We think senior housing is a more pressing need for existing town residents. However, the depth of demand for senior housing and the ability of seniors to pay is unlikely to be sufficient to acquire all the units that could be fit into renovated parts of the Inn and Academy Building. Accordingly, potential development plans should include the possibility of attracting those who want vacation or second homes as potential buyers of condominium units or single family homes.

#### 1.1.5. Other types of ownership (co-housing, rent-to-own, etc.)

### Information from the Public Information Meetings, Focus Group Meetings, Emails, and online Feedback:

The following ownership models have been proposed:

- Co-housing characteristics combined with condo structure: all the units will be condo, and co-housing is optional.
- "Rent to own"
- "Village to village" (membership-based senior living)

#### The consulting team's assessment:

Ted Carman spent over a year working with a co-housing group during the nineties, and attended many organizational and planning meetings. He prepared detailed financial analyses for potential co-housing communities. This experience led to the conclusion that it is difficult for a group of people to start a co-housing project from scratch. However, co-housing has worked in situations where a developer builds the project and then opens it up to and requires buyers to accept a co-housing form of ownership and operations. Membership-based living also needs a developer as a lead. Cohousing would therefore require a developer committed to such a concept.

However, we believe that elements of co-housing living could be incorporated into a potential renovation of the main part of the Nichewaug Inn, with more extensive kitchen and dining facilities built into the Music Room renovation. This would allow those residents who chose to have jointly prepared meals to do so, while not limiting sales of the condominiums to buyers who want a co-housing life-style.

"Rent to own" has difficulty with the financial structure, because a "rent-own" requires the unit be sold at the then market price when the sale takes place. It is impossible to know for

certain what the eventual sale price will be, which is a problem for both the developer / and the renter / prospective buyer. It is therefore hard to finance and obtain up-front commitments. Furthermore, rent to own requires that the economics of the rental transaction provide for a feasible project, which, as noted above, does not appear to be the case in Petersham.

#### 1.2. Commercial & Office (including mixed-use)

#### 1.2.1. Municipal and other public office use

Information from the Public Information Meetings, Focus Group Meetings, Emails, and online Feedback:

It was suggested that the Town needs better, additional office space. The existing town office doesn't meet with handicapped accessible standards. Another suggestion is to provide office space for local groups such as "Aging in Place".

#### The consulting team's assessment:

It appears that the Center School building might have empty space that could potentially accommodate a Town need, if any, for additional office space. The school is designed for 175 students and currently has about 110 students. A new school is being completed in Athol which may draw "Choice" students from Petersham's school, leaving more space that could potentially be used for Town administrative office.

Space at the Nichewaug Inn or in the Academy Building would be expensive – it would presumably be sold to the Town as a Condominium form of ownership, and is likely to cost as much or more than the proceeds that might be realized from the sale of the current Town Office Building. It would therefore not likely be a net plus for the Town's financial situation.

#### 1.2.2. Private commercial uses

### Information from the Public Information Meetings, Focus Group Meetings, Emails, and online Feedback:

A number of commercial uses have been proposed, including small inn, restaurant, retail store, business space or studio space for providing business support services to town residents who are running home businesses, and small businesses which provide services such as hair dresser, cleaning, and health care to both seniors and the non-seniors. It is also suggested that the existing buildings could be renovated into a multi-use, perhaps multiphase project that incorporates these commercial uses, town office, and several different types of housing.

The consulting team's assessment:

It would be difficult to finance a mixed use development in this location and at this scale. As is the case for rental apartments, the ability and willingness of commercial tenants to pay a rent high enough to support the cost of the acquisition and renovation of commercial space is suspect. Given the cost of construction, commercial rents would have to be in excess of \$20 per square foot per year in order for the transactions to be financially feasible.

Because of the limited population in Petersham and the relative isolation from nearby population centers it is unlikely that commercial tenants could be attracted that could pay rent at \$20 per s.f. per year and be viable businesses.

The residents in the renovated buildings will not support even a small store. Typically, even 200-300 housing units are not sufficient to support a store.

#### 1.3. Open Space, Recreational, and Non-commercial Uses

Information from the Public Information Meetings, Focus Group Meetings, Emails, and online Feedback:

A number of non-commercial uses have been proposed, including new development and the restoration of previous uses on the site:

- Renovate the Inn building into a Senior Center which can be used as a town gathering space;
- Restore the Community Garden on the site and open it to public use;
- Restore the Tennis Court on the site and open it to public use;
- Keep a portion of the site as open space which will continue to be owned by the Town;
- Tear down the buildings, build a cemetery in the back part of the site, modeling on the Mt Auburn Cemetery in Cambridge, and use the front part of the site as recreational space.

#### The consulting team's assessment:

A Senior Center as a town gathering space is unlikely to be able to generate revenues to pay for the initial construction and acquisition cost, or for its own maintenance. Such a use would therefore increase the financial burden on the Town.

In several of the Options, the Chapel (the Music Room) could be converted to a common room for the use of the condo community. The Condo Association will pay for its operation and maintenance. Opening this building to the broader Petersham community would have implications for the residents that need to be assessed.

In all the scenarios, it appears feasible for the Community Garden to be retained.

Asking the developer to refurbish the Tennis Court for public use or keeping a portion of the site as Town's owned open space may make the project less attractive to potential condominium buyers, and therefore also to developers, because it could depress sale prices.

Cemeteries are expensive to design and lay-out, and expensive to maintain, particularly if they have the overall quality of the Mt. Auburn Cemetery. The initial financial costs can be significant.

#### 2. Important Issues

#### 2.1. Water Supply and Septic

#### 2.1.1. DEP approval for water/septic systems

Information from the Public Information Meetings, Focus Group Meetings, Emails, and online Feedback:

The types of water/septic system that meet with DEP's standards are dependent on the scale of demolition, the type and amount of new development, and the condition of the existing well. In all cases with more than 12 bedrooms the well would be considered a Public Water Supply ("PWS")

#### The consulting team's preliminary assessments:

Please see the report from Douglas MacLeay regarding water supply and septic systems, the e-mail from DEP, and the sketch plan, all included in Section 6 of this report.

#### 2.1.2. Resolving the Library's water/septic needs

### Information from the Public Information Meetings, Focus Group Meetings, Emails, and online Feedback:

The Library is open 19 hours/week, with the peak number of visitors occurring on Tuesdays. Currently the well for the library is in the dirt-floor basement, and the water is not potable. There is one bathroom on the 2nd floor which requires an improved septic system. There are plans to build a bathroom (ADA standard) on the first floor.

In the conceivable future, the library is unlikely to have other functions or have a change of use that would trigger larger water/septic needs.

#### The consulting team's assessment:

In most cases, there should not be a problem in providing water and septic for the Library from a new Inn/Academy building renovation project. Potentially the developer could pay for the initial incremental cost, which should be minimal compared with the total project cost. Then the Library would pay yearly maintenance fee to a condo association. The fee would probably be based on the usage of water/septic, proportionally allocated between the Library and the condo component.

However, in certain development scenarios it may be more difficult to require the builder to provide such infrastructure. However, as suggested above, in such a case it might be possible to provide an easement area on the Nichewaug site for the location of a new septic

system for the Library, and the Library could investigate putting a new well into the area in front of the building.

# 2.2. Scale, Density and the Character of Town Center (Single-family vs. Townhouse vs. Condo)

Information from the Public Information Meetings, Focus Group Meetings, Emails, and online Feedback:

Currently Petersham has very few condominiums or townhouses. Most residents believe that Petersham is defined by its country scenery, open space, and the lack of more densely developed housing, such as condominiums. This character is what attracted many families to move to the community in the first place.

There is concern that higher density housing (or other uses) would not have enough open space, and would degrade the unique quality of the town's village center.

There are different options regarding the proposed densities. Some people think that 30-40 bedrooms is too dense and will add too much activity to the town center. Others believe that the proposed density won't add significant activity and vehicle trips to the town center.

There is also concern about the market demand for the units, especially in the scenario with the highest number of units.

#### The consulting team's assessment:

The character of Petersham, particularly in the village center, is evidenced by the remarkable collection of 19<sup>th</sup> and early 20<sup>th</sup> century buildings around the Town Common and in the Town's Historic District. Uniquely for Petersham, there are very few instances of later 20<sup>th</sup> or 21<sup>st</sup> century buildings intruding into this attractive landscape.

The Nichewaug Inn, although vacant for over 30 years, is an important part of the character of the Village Center. It is an excellent example of late 19<sup>th</sup> century shingle style architecture. Losing this building to demolition would profoundly change the character of the Village Center.

All the options being considered contain substantial demolition of existing structures on the site. Consequently, the built density of the site will be reduced regardless of what option is chosen by the Town.

From a transportation infrastructure point of view, it appears clear that all the roadways are being used at levels substantially below capacity. Demonstrating this, there is no traffic light in the center of the Town. Adding even as many as 30 new housing units to the site would not put significant strain on roadways or traffic. None of the streets would see a reduction in service capacity.

The types of housing being proposed are not likely to contribute many new school aged children to the Town. Further, the school system is substantially under capacity, so the incremental or marginal cost of a modest number of new children in the school system is

likely to be small. However, these costs have been estimated, and included in the cost benefit analysis for the Town.

In planning new developments, typically adding more square footage, more housing units (or more office space) is the direction taken to make projects more financially feasible. In this case, however, as noted above, there is a major question regarding the depth of the market for new housing units.

The development / financing challenge is to determine an optimum balance between saving a portion of the Nichewaug Inn, possibly developing the balance of the site, and proposing a type of housing that will be supported by the market, and which can afford to be built.

All the Options considered substantially reduce the footprint of the existing structures. The Town can use zoning and design guidelines to control the look and amount of open space of future development.

#### 2.3. Demolition + New Construction vs. Rehabilitation

Information from the Public Information Meetings, Focus Group Meetings, Emails, and online Feedback:

A suggestion has been made to demolish the existing building and build either new single family homes or new townhouses. Arguments for this approach include the fact that total demolition would make it easier to lay out the site plan, and new construction could be less expensive and achieve higher overall quality with ADA accessibility standards.

#### The consulting team's preliminary assessments:

Townhouses are typically well suited for young families with children. They are a good way of providing affordable "starter homes" at lower costs for couples starting out. However, it is believed that there is minimal demand for such housing in Petersham, for all the reasons set forth earlier. There are no jobs nearby, few services or retail establishments, and it is a long way to the supermarket. This makes three bedroom townhouses less feasible. Accordingly, Option 5 considers building 15 new two-bedroom townhouses which would have a limited number of children. Such a plan could include some one-story, modest in size, one bedroom units.

It would appear that a small number of single family homes will be acceptable to the market, and are likely to be financially feasible. However, because they typically come with school aged children, over time the education costs are likely to offset the property taxes paid by the units, as shown in the cost benefit analysis.

With regard to total demolition, the existing Inn building has great historic and architectural value and makes an important contribution to the entire Village Center. There are strong reasons to preserve the building, which have been articulately described by a number of residents, as well as by the Massachusetts Historical Commission in their 2010 comments to the Town's proposal to demolish the Property.

Rehabilitation and reuse, if financially feasible, will preserve the building, restore it to its initial beauty, and enhance the unique character of the town. It is believed that renovation can achieve the same level of quality as new construction. The Academy building is in better physical condition, and has the right dimensions for high-quality residential. It should cost less on a per square foot or per unit basis, and therefore the housing units can be sold for less, or if sold for the same price as units in the Inn, would have higher margins.

Renovating the Nichewaug Inn is likely to increase property values in the Village Center.

It is recommended that the Town delay demolition, except for the Connector Building, until having a developer ready to proceed with a specific plan, or until it becomes clear that no developer is prepared to move forward with a financially feasible plan.

#### 2.4. Securing the Town's interest in later stages

Information from the Public Information Meetings, Focus Group Meetings, Emails, and online Feedback:

In the past, the Town issued an RFP to seek developer/ development proposals. This approach did not succeed in producing a viable plan that was acceptable to the Town. The question is – how to ensure that a future RFP would be successful at identifying a capable developer, who would be prepared to and capable of carrying out the plan approved by the town?

#### The consulting team's preliminary assessments:

As part of this report, Concord Square and its team has provided information about site conditions, local needs, local markets, development plans, and financial feasibility for six Development Options.

This will provide potential developers with a substantial head start in understanding the site and the market. In addition, it is recommended that the Town commit to undertaking the required environmental and demolition work needed for the proposed work.

This is expected to make the proposed project significantly more attractive to potential developers than the RFP issued several years ago.

Nichewaug Inn – Market and Feasibility Analysis October 31, 2016

# **Tab / Section**

### #2

# **PowerPoint Presentation Summary**





































	ay - i man	igs			
Summary of 12 Month Comparable Sales					
Sales Price	Square Feet	Price / s.f.			
\$229,000	1,196	\$191.47			
\$500,000	3,694	\$135.35			
\$274,950	2,126	\$129.33			
\$303,446	2,164	\$140.22			
N = 49					
	mary of 12 Mor Sales Price \$229,000 \$500,000 \$274,950 \$303,446 N = 49	mary of 12 Month Comparable Sales Price Square Feet \$229,000 1,196 \$500,000 3,694 \$274,950 2,126 \$303,446 2,164 N = 49			

Exhibit 4 - Estimated Sales Price of Proposed Units					
Unit Type	Size	Price / S	SF Range	Potential	Sales Price
1 BR Condo	700	\$165	\$175	\$115,500	\$122,500
1 BR Condo	900	\$165	\$175	\$148,500	\$157,500
2 BR Condo	1,000	\$165	\$175	\$165,000	\$175,000
2 BR Condo	1,400	\$165	\$175	\$231,000	\$245,000
2 BR SFH	1,600	\$165	\$175	\$264,000	\$280,000
3 BR SFH	2,000	\$165	\$175	\$330,000	\$350,000













Costs	)			
Estimated number of School Aged Children (SAC) Per Housing Type				
0.045				
0.152				
0.95				
5,000				
1,500				
6 500				
	Costs c) (pe 0.045 0.152 0.95 5,000 1,500			

		Option 1 Inn + Acad. Condos	Option 2 Inn 15 Condos	Option 3 Inn - 9 units Homes - 3	Option 4 Homes - 4	Option 5 Fownhouses 15	Option 6 Inn Rental
Number of U	nits / type	45	0	C			•
	# 1 DR # 2 BR	13	0 7	3		15	0 7
	# Single Family	0	•	3	4	0	
Number of S	AC / type						
	1 BR	0.675	0.36	0.27	0	0	0.36
	2 BR	2.128	1.064	0.456	0	2.28	1.064
	Single Family	0	0	2.85	3.8	0	0
	Total per option	2.803	1.424	3.576	3.8	2.28	1.424
	Education Costs	18,220	9,256	23,244	24,700	14,820	9,256

				• • •				
				Construction	Cost Es	timates		
	Option	Total Units	Total BRs	Total Const. \$ ncl. Conting.	Gross s.f.	Cost per Gross s.f.	Saleable s.f.	Cost per Salable s
1	Academy Building	14	21	2,542,265	20,060	\$126.73	13,470	\$188.7
2	Nichewaug Inn	15	22	3,671,668	23,488	\$156.32	15,380	\$238.7
3	Nichewaug Inn 3 Single Family	9 3	12 9	2,332,300 238,298	14,680 1,900	\$158.87 \$125.42	9,290 1,500	\$251.0 \$158.8
4	4 Single Family	4	12	238,298	1,900	\$125.42	1,500	\$158.8
5	15 Townhouses	15	30	177,811	1,400	\$127.01	1,200	\$148.1
6	Nichewaug as Rental	15	22	3,361,670	23,488	\$143.12	15,380	\$218.5

Feasibility – Option 1 Unit Size and Number				
	Inn	Academy		
1 BR Size	846	796		
2 BR Size	1,230	1,129		
# 1 BR Units	8	7		
# 2 BR Units	7	7		
Total Units	15	14		
Requires off-si	ite water su	pply		
Petersham Nichewaug Inn & Academy pr	operty		30	

Nichewaug	Nichewaug Inn + Academy Building					
Michewaag		Acat		Janan		
Sources of Fund	s	Analysis A	Analysis B			
	Bonz +	•	•	Bonz +		
Nichewaug Sales	10.0%	2,960,650	5,652,150	110.0%		
Academy Sales	10.0%	2,592,975	3,960,180	68.0%		
Cost of Sales @	6.0%	(333,218)	(576,740)			
Total Sources		5,220,408	9,035,590			
Uses of Funds						
Acquisition		\$1.00	\$1.00			
Water & Septic		138,000	138,000			
Soft Costs		1,129,806	1,129,806			
Academy Const.	\$113	2,311,150	2,311,150			
Nichewaug Const.	\$142	3,337,880	3,337,880			
Const. Conting.	10.0%	564,903	564,903			
Misc.		50,000	50,000			
		7,531,740	7,531,740			
Total Sources		5,220,408	9,035,590			
Total Uses		(7,531,740)	(7,531,740)			
Developer Profit		(2,311,333)	1,503,850			
Profit as % of Costs		-30.7%	20.0%			

Unit Pricing					
Sale Prices	Inn	Academy Building			
Bonz plus	10.0%	10.0%			
One BR Units	\$162,903	\$153,175			
Two BR Units	\$236,775	\$217,250			
Price per s.f.	\$193	\$193			
Bonz plus	110.0%	68.0%			
One BR Units	310,997	233,940			
Two BR Units	452,025	331,800			
Price per s.f.	\$368	\$294			
Assumptions					
------------------------	---------	-----------	--	--	
Total Sales value		9,612,330			
Assessed Value percent		90.0%			
Assessed Value		8,651,097			
Tax Rate		\$16.42			
Annual Property taxes		142,051			
Annual Inflation		2.50%			
Total Cost		715,211			
Cont. & Mgmt	10.0%	71,521			
Issuance Cost	8.0%	57,217			
Amount of Debt		843,949			
Debt Service @	6.7216%	56,727			

Option 1 Cost - Benefit				
Option # 1 - Cos	st / Benefit Sum	mary		
Number of SAC		2 002		
First year educa	ation cost	18,220		
	Analysis A	Analysis B		
Twenty year				
		2 0 2 2 0 2		

Feasibility – Option 2 Nichewaug Inn – 15 Units					
	Sale Prices	# Units			
Bonz plus	10.0%				
One BR Units	\$162,903	8			
Two BR Units	\$236,775	7			
Price per s.f.	\$193	15			
		Size of Units			
Bonz plus	110.0%				
One BR Units	310,997	846			
Two BR Units	452,025	1,230			
Price per s.f.	\$368	•			
Petersham Nichewaug Inn & Academy propert	ty		35		

Source & Uses of Funds				
30UI	ιε α	0363 0	runus	
Sources of Euro	le.	Analysis A	Analysia P	
Sources of Fund	Bonz +	10.0%	110.0%	
Nichewaug Sales		2.960.650	5.652.150	
Cost of Sales @	6.0%	(177,639)	(339,129)	
Total Sources		2,783,011	5,313,021	
Uses of Funds				
Acquisition		1	1	
Water & Septic		84,000	84,000	
Soft Costs		667,576	667,576	
Nichewaug Const.	\$142	3,337,880	3,337,880	
Const. Conting.	10.0%	333,788	333,788	
Misc.		25,000	25,000	
		4,448,245	4,448,245	
Total Sources		2,783,011	5,313,021	
Total Uses		(4,448,245)	(4,448,245)	
Developer Profit		(1,665,234)	864,776	
Profit as % of Costs		-37.4%	19.4%	

Option 2 Cost - Benefit Assumptions				
Total Sales value		5,652,150		
Assessed Value percer	nt _	90.0%		
Assessed Value		5,086,935		
Tax Rate		\$16.42		
Annual Property taxes		83,527		
Annual Inflation		2.50%		
Cost of Env. & Demo		885,201		
Cont. & Mgmt	10.0%	88,520		
Issuance Cost	8.0%	70,816		
Amount of Debt		1,044,537		
Debt Service @	6.7216%	70,209		
Petersham Nichewaug Inn & Academy property			37	



N	ichewaug	– 9 un	its	
	Sale Prices	# Units	# BRs	
Bonz plus	10.0%			
One BR Units	\$171,004	6	6	
Two BR Units	\$254,100	3	6	_
Price per s.f.	\$193	9	12	
	5	Size of Units		
Bonz plus	120.0%			
One BR Units	342,008	888		
Two BR Units	508,200	1,320		
Price per s.f.	\$385			
Private water supp	ly - 12 Bedrooms			

Niek	Nichowaya O Unite					
NIC	newa	ug – 9	Units			
Sources of Fun	de	Analysis A A	nalvsis B			
	Bonz +	10.0%	120.0%			
Nichewaug Sales		1,788,325	3,576,650			
Cost of Sales @	6.0%	(107,300)	(214,599)			
Total Sources		1,681,026	3,362,051			
Uses of Funds						
Acquisition		1	1			
Water & Septic		41.500	41.500			
Soft Costs		424,055	424,055			
Nichewaug Const.	\$144	2,120,273	2,120,273			
Const. Conting.	10.0%	212,027	212,027			
Misc.		25,000	25,000			
		2,822,855	2,822,855			
Total Sources		1,681,026	3,362,051			
Total Uses		(2,822,855)	(2,822,855)			
Developer Profit		(1,141,830)	539,196			
Profit as % of Costs		-40.4%	19.1%			

Sales value - Inn		3 576 650	
Sales value - homes		1 167 075	
Total Sales		4.743.725	
Assessed Value percer	nt	90.0%	
Assessed Value		4,269,353	
Tax Rate		\$16.42	
Annual Property taxes		70,103	
Annual Inflation		2.50%	
Total Cost		958,110	
Cont. & Mgmt	10.0%	95,811	
Issuance Cost	8.0%	76,649	
Amount of Debt		1,130,570	
Debt Service @	6.7216%	75,992	



Single Family Homes					
	3	5			
	Sources of Funds	Analysis A	Analysis B		
	Bonz +	10.0%	17.0%		
	Sale Proceeds	365.750	389.025		
	Less Cost of Sales @	(21,945)	(23,342)		
	Total Sources	343,805	365,684		
	Uses of Funds				
	Acquisition from the Town	1	1		
	Water & Septic	10,375	10,375		
	Soft Costs	29,795	29,795		
	Const. Cost	238,298	238,298		
	Misc.	25,000	25,000		
	Total Uses	303,469	303,469		
	Total Sources	343,805	365,684		
	Total Uses	(303,469)	(303,469)		
	Developer Profit	40,336	62,214		
	Profit as % of Costs	13.3%	20.5%		

Fe Si	Feasibility – Option 4 Single Family Homes					
	Size	Constr. Cost	\$ / s.f.			
Home Garage	1,500 400	218,498 19,800	\$145.67 \$49.50			
Total	1,900	238,298	\$125.42			
Sales Price		365,750	\$243.83			
Petersham Nichewaug Inn & Ac	ademy property		44			

Cost benefit Assumptions					
Salas value - homos		380.025	nor homo		
Total Sales		1 556 100	per nome		
Assessed Value per	cent	90.0%			
Assessed Value		1.400.490			
Tax Rate		\$16.42			
Annual Property taxe	es	22,996			
Annual Inflation		2.50%			
Total Cost		971,629			
Cont. & Mgmt	10.0%	97,163			
Issuance Cost	8.0%	77,730			
Amount of Debt		1,146,522			
Debt Service @	6.7216%	77,064			



Townhouses				
Sources of Funds Bonz +	Analysis A 10.0%	Analysis B 18.0%		
Sale Proceeds	269,500	289,100		
Less Cost of Sales @	(16,170)	(17,346)		
Total Sources	253,330	271,754		
Uses of Funds				
Acquisition from the Town	1	1		
Water & Septic	11,200	11,200		
Soft Costs	22,897	22,897		
Const. Cost	177,811	177,811		
Misc.	19,000	19,000		
Total Uses	230,909	230,909		
Total Sources	253,330	271,754		
Total Uses	(230,909)	(230,909)		
Developer Profit	22,421	40,845		
Profit as % of Costs	9.7%	17.7%		

rownhouses							
	Size	Constr. Cost	\$ / s.f.				
Home	1,200	167,911	\$139.93				
Garage	200	9,000	\$45.00				
Total	1,400	176,911					
			\$126.37				
Sales Price		269,500	\$224.58				

Cost Be	nefit A	ssump	tions	
Sales value - homes		289 100	/ townhouse	
Total Sales		4.336.500	, townhouse	
Assessed Value percent		90.0%		
Assessed Value		3,902,850		
Tax Rate		\$16.42		
Annual Property taxes		64,085		
Annual Inflation		2.50%		
Total Cost		971,629		
Cont. & Mgmt	10.0%	97,163		
Issuance Cost	8.0%	77,730		
Amount of Debt		1,146,522		
Debt Service @	6.7216%	77,064		



Nichewaug Inn – Option 6 (Option 2 as Rentals – 9 Units)							
Rent Summary	Туре	No. <b>Units</b>	Avg s.f. Leasable per unit	Rent per unit	Rent per s.f.		
lnn Inn	1 BR 2 BR	8 7	846 1,230	\$1,185 \$1,661	\$1.40 \$1.35		
etersham Nichewaug Inn	& Academy pr	operty			51		

Feasibility - Rental Op	- Option 6 erations	
Sources of Funds		
Conventional Debt	1,489,000	
Federal Historic Credit	809,000	
State Historic Credit	724,000	
Mass Housing Program	1,100,000	
Developer Equity	300,000	
Deferred Developer Fee	407,000	
Total	4,829,000	
Petersham Nichewaug Inn & Academy property		52

Rental	Operations	
Uses of Funds		
	F	Rehab Costs
Acquisition	1	0
Soft Costs	708,000	530,000
Construction Costs	3,112,657	2,888,657
Const. Contingency	249,013	231,093
Development Fee	657,000	609,719
Miscellaneous	18,329	0
Total	4,745,000	4,259,469



Nichewaug – Option 6 Cost Benefit Assumptions							
Annual Property taxes		21,440					
Annual Inflation		2.5%					
Total Cost		715,211					
Cont. & Mgmt	10.0%	71,521					
Issuance Cost	8.0%	57,217					
Amount of Debt		843,949					
Debt Service @	6.7216%	56,727					
etersham Nichewaug Inn & Academy property							



-								
				Construction	Cost Es	timates		
	Option	Total Units	Total BRs	Total Const. \$ ncl. Conting.	Gross s.f.	Cost per Gross s.f.	Saleable s.f.	Cost per Salable s
1	Academy Building	14	21	2,542,265	20,060	\$126.73	13,470	\$188.7
2	Nichewaug Inn	15	22	3,671,668	23,488	\$156.32	15,380	\$238.7
3	Nichewaug Inn	9	12	2,332,300	14,680	\$158.87	9,290	\$251.0
	3 Single Family	3	9	238,298	1,900	\$125.42	1,500	\$158.8
4	4 Single Family	4	12	238,298	1,900	\$125.42	1,500	\$158.8
5	15 Townhouses	15	30	177,811	1,400	\$127.01	1,200	\$148.1
6	Nichewaug as Rental	15	22	3,361,670	23,488	\$143.12	15,380	\$218.5

	Summary								
	Option	Total Units	Total BRs	Profit Loss Bonz + 10%	Percent Profit	% Added to Bonz for feasibility	Well PWS	Net Benefi to Tow	
1	Nichewaug + Academy	29	43	(2,311,333)	-30.7%	110.0% 68.0%	PWS Off Site	2,028,70	
2	Nichewaug Inn	15	22	(1,665,234)	-37.4%	110.0%	PWS On Site	493,054	
3	Nichewaug Inn 3 Single Family	9 3	12 9	<mark>(2,822,855)</mark> 121,007	<mark>-40.4%</mark> 13.3%	120.0% 17.0%	Existing	(322,85	
4	4 Single Family	4	12	161,343	13.3%	17.0%	Existing	(1,584,8	
5	15 Townhouses	15	30	336,313	9.7%	18.0%	PWS On Site May be Possible	(282,83	
	Nichewaug as Rental	15	22	N/A			PWS On Site	(823,29	







Nichewaug Inn – Market and Feasibility Analysis October 31, 2016

## **Tab / Section**

#3

# **Financial Analysis**

#### Nichewaug Inn - Cost Benefit Analysis Based on Bonz plus 10% **Anticipated Costs** Environmental Remediation - 2015 bid 494,729 Demo of Connector Building - 2015 bid 139,700 Demo of other buildings - 2015 Bid 337,200 Total Demo and Remediation - 2015 bids: 971,629 97,163 Contingency, management 10.0% (Please see page 8 below for cost breakdown for each option) Costs of Issuance 8.0% 77,730 1,146,522 Total Debt to be raised Rounded: 1,150,000 Debt Service Calculation: Annual Maintenance & Insurance @ 1,200 Amount of Loan 1,150,000 Annual Interest Rate 3.0% Number of Months 20 Monthly Pmt 6,442 Annual Payment 6.7216% 77,298 (based on one annual payment)

Current Tax Rate \$16.42 per thousand

### **Bonding of Costs**

	Annual			Balance	Plus	Cumulative
Years	Debt Service	Interest	Principal	End of Year	Operations	Cost
				1,150,000		
1	77,298	34,500	42,798	1,107,202	1,200	78,498
2	77,298	33,216	44,082	1,063,120	1,236	157,032
3	77,298	31,894	45,404	1,017,715	1,273	235,603
4	77,298	30,531	46,767	970,949	1,311	314,213
5	77,298	29,128	48,170	922,779	1,351	392,861
6	77,298	27,683	49,615	873,165	1,391	471,550
7	77,298	26,195	51,103	822,061	1,433	550,281
8	77,298	24,662	52,636	769,425	1,476	629,055
9	77,298	23,083	54,215	715,210	1,520	707,874
10	77,298	21,456	55,842	659,368	1,566	786,737
11	77,298	19,781	57,517	601,851	1,613	865,648
12	77,298	18,056	59,243	542,609	1,661	944,607
13	77,298	16,278	61,020	481,589	1,711	1,023,616
14	77,298	14,448	62,850	418,738	1,762	1,102,676
15	77,298	12,562	64,736	354,002	1,815	1,181,790
16	77,298	10,620	66,678	287,325	1,870	1,260,957
17	77,298	8,620	68,678	218,646	1,926	1,340,181
18	77,298	6,559	70,739	147,908	1,983	1,419,462
19	77,298	4,437	72,861	75,047	2,043	1,498,803
20	77,298	2,251	75,047	(0)	2,104	1,578,206
Totals	1,545,961	395,961	1,150,000			

Option 1	Analysis	Academy Buildir	ng plus Niche	waug Inn: Number of units:	29	
		Option 1 Cost Be	enefits Analys	sis		
	Total Sales value		5,553,625			
	Assessed Value p	percent	90.0%			
	Assessed Value		4,998,263			
	Tax Rate		\$16.42			
	Annual Property t	axes	82,071			
	Annual Inflation		2.50%	= Proposition 2 1/2 maximum ann	ual increase in tax lev	у.
	Total Cost		715,211			
	Cont. & Mgmt	10.0%	71,521			
	Issuance Cost	8.0%	57,217			
	Amount of Debt		843,949			
	Debt Service @	6.7216%	56,727			
	Annual School Co	osts	18.220	Estimated annual increase:	2.5%	(please see p. 9 below for assumptions)

Cumulative Annual Annual Annual Net Rev. Years Debt Service School Costs Revenues per year Revenues 18,220 1 56,727 82,071 7,125 7,125 2 56,727 18,675 84,123 8,722 15,847 3 56,727 19.142 86,226 10,358 26,205 4 56,727 19,620 88,382 38,240 12,035 5 56,727 20,111 90,592 13,754 51,994 20.614 92,856 15,516 67,510 6 56,727 7 84,832 56.727 21.129 95,178 17,322 8 56,727 21,657 97,557 19,173 104,005 9 56,727 22,199 99,996 21,071 125,076 22,754 10 56,727 102,496 23,016 148,092 11 56,727 23,323 105,058 25,009 173,101 12 56,727 23,906 107,685 27,053 200,154 13 56,727 24,503 110,377 29,147 229,301 56,727 25,116 31,294 260,595 14 113,136 15 294,090 56,727 25,744 115,965 33,495 16 56,727 26,387 118,864 35,750 329,840 17 56,727 27.047 121,836 38,062 367,902 18 56,727 27,723 124,881 40,432 408,334 19 56,727 28,416 128,003 42,861 451,194 20 56,727 29,127 45,350 496,545 131,204 1,134,532 465,411 2,096,488 496,545

### Option 2 Analysis Nichewaug Inn - 15 Units

Years	Annual Debt Service	Annual School Costs	Annual Revenues	Net Rev.	Cumu Rever
Annual School C	osts	9,256	Estimated an	nual increase:	
Debt Service @	6.7216%	70,209			
Amount of Debt		1,044,537			
Issuance Cost	8.0%	70,816			
Cont. & Mgmt	10.0%	88,520			
Cost of Env. & De	emo	885,201			
Annual Inflation		2.50%			
Annual Property	taxes	43,752			
Tax Rate		\$16.42			
Assessed Value		2,664,585			
Assessed Value	percent	90.0%			
Total Sales value	)	2,960,650			

Years	Annual Debt Service	Annual School Costs	Annual Revenues	Net Rev. per year	Cumulative Revenues
1	70,209	9,256	43,752	(35,713)	(35,713)
2	70,209	9,487	44,846	(34,850)	(70,563)
3	70,209	9,725	45,967	(33,966)	(104,530)
4	70,209	9,968	47,117	(33,060)	(137,590)
5	70,209	10,217	48,295	(32,132)	(169,722)
6	70,209	10,472	49,502	(31,180)	(200,901)
7	70,209	10,734	50,739	(30,204)	(231,105)
8	70,209	11,002	52,008	(29,204)	(260,309)
9	70,209	11,278	53,308	(28,179)	(288,488)
10	70,209	11,559	54,641	(27,128)	(315,615)
11	70,209	11,848	56,007	(26,051)	(341,666)
12	70,209	12,145	57,407	(24,947)	(366,613)
13	70,209	12,448	58,842	(23,815)	(390,429)
14	70,209	12,759	60,313	(22,655)	(413,084)
15	70,209	13,078	61,821	(21,467)	(434,551)
16	70,209	13,405	63,367	(20,248)	(454,799)
17	70,209	13,741	64,951	(18,999)	(473,798)
18	70,209	14,084	66,575	(17,719)	(491,517)
19	70,209	14,436	68,239	(16,407)	(507,923)
20	70,209	14,797	69,945	(15,061)	(522,985)
	1,404,186	236,441	1,117,642	(522,985)	

2.5%

### Option 3 Analysis Nichewaug Inn - 9 Units + 3 homes

Sales value - Inn		1 788 325
Sales value - homes		1,097,250
Total Sales	-	2 885 575
Appaged Value percent	.+	2,000,070
Assessed value percen		90.0%
Assessed Value		2,597,018
Tax Rate		\$16.42
Annual Property taxes		42,643
Annual Inflation		2.50%
Total Cost		958.110
Cont & Mamt	10.0%	95 811
Issuance Cost	8.0%	76.649
Amount of Debt		1,130,570
Debt Service @	6.7216%	75,992

Debt Service @ 6.7216% 75		75,992				
Annual School Co	osts	23,244	Estimated ann	ual increase:	2.5%	
Annual		Annual	Annual	Net Rev.	Cumulative	
Years	Debt Service	School Costs	Revenues	per year	Revenues	
1	75,992	23,244	42,643	(56,593)	(56,593)	
2	75,992	23,825	43,709	(56,108)	(112,701)	
3	75,992	24,421	44,802	(55,611)	(168,312)	
4	75,992	25,031	45,922	(55,101)	(223,414)	
5	75,992	25,657	47,070	(54,579)	(277,993)	
6	75,992	26,298	48,247	(54,044)	(332,037)	
7	75,992	26,956	49,453	(53,495)	(385,532)	
8	75,992	27,630	50,689	(52,933)	(438,464)	
9	75,992	28,321	51,956	(52,356)	(490,821)	
10	75,992	29,029	53,255	(51,765)	(542,586)	
11	75,992	29,754	54,587	(51,160)	(593,746)	
12	75,992	30,498	55,951	(50,539)	(644,285)	
13	75,992	31,261	57,350	(49,903)	(694,187)	
14	75,992	32,042	58,784	(49,250)	(743,437)	
15	75,992	32,843	60,253	(48,582)	(792,019)	
16	75,992	33,664	61,760	(47,896)	(839,916)	
17	75,992	34,506	63,304	(47,194)	(887,110)	
18	75,992	35,368	64,886	(46,474)	(933,584)	
19	75,992	36,253	66,509	(45,736)	(979,320)	
20	75,992	37,159	68,171	(44,980)	(1,024,300)	
	1,519,841	593,760	1,089,302	(1,024,300)		

### Option 4 Analysis Four Single Family Homes - 12 bedrooms

Sales value - homes		365,750	per home
Total Sales		1,463,000	
Assessed Value percen	t	90.0%	
Assessed Value		1,316,700	
Tax Rate		\$16.42	
Annual Property taxes		21,620	
Annual Inflation		2.50%	
Total Cost		971,629	
Cont. & Mgmt	10.0%	97,163	
Issuance Cost	8.0%	77,730	
Amount of Debt		1,146,522	
Debt Service @	6.7216%	77,064	

Annual School C	osts	24,700	Estimated ann	2.5%	
Years	Annual Debt Service	Annual School Costs	Annual Revenues	Net Rev. per year	Cumulative Revenues
1	77,064	24,700	21,620	(80,144)	(80,144)
2	77,064	25,318	22,161	(80,221)	(160,365)
3	77,064	25,950	22,715	(80,300)	(240,665)
4	77,064	26,599	23,283	(80,381)	(321,046)
5	77,064	27,264	23,865	(80,464)	(401,510)
6	77,064	27,946	24,461	(80,549)	(482,059)
7	77,064	28,644	25,073	(80,636)	(562,695)
8	77,064	29,361	25,700	(80,725)	(643,420)
9	77,064	30,095	26,342	(80,817)	(724,237)
10	77,064	30,847	27,001	(80,911)	(805,147)
11	77,064	31,618	27,676	(81,007)	(886,154)
12	77,064	32,409	28,368	(81,105)	(967,259)
13	77,064	33,219	29,077	(81,206)	(1,048,465)
14	77,064	34,049	29,804	(81,310)	(1,129,775)
15	77,064	34,900	30,549	(81,416)	(1,211,191)
16	77,064	35,773	31,313	(81,525)	(1,292,716)
17	77,064	36,667	32,095	(81,636)	(1,374,352)
18	77,064	37,584	32,898	(81,751)	(1,456,103)
19	77,064	38,524	33,720	(81,868)	(1,537,970)
20	77,064	39,487	34,563	(81,988)	(1,619,958)
	1,541,286	630,953	552,281	(1,619,958)	-

### Option 5 Analysis New Construction - Townhouses - # units: 15

Sales value - homes Total Sales Assessed Value percen Assessed Value Tax Rate Annual Property taxes Annual Inflation	t	269,500 4,042,500 90.0% 3,638,250 \$16.42 59,740 2.50%	per townhouse
Total Cost Cont. & Mgmt Issuance Cost Amount of Debt Debt Service @	10.0% 8.0% 6.7216%	971,629 97,163 77,730 1,146,522 77,064	

Annual School Costs

14,820 Estimated annual increase:

2.5%

	Annual	Annual	Annual	Net Rev.	Cumulative
Years	Debt Service	School Costs	Revenues	per year	Revenues
1	77,064	14,820	59,740	(32,144)	(32,144)
2	77,064	15,191	61,234	(31,021)	(63,165)
3	77,064	15,570	62,764	(29,870)	(93,036)
4	77,064	15,960	64,334	(28,690)	(121,726)
5	77,064	16,359	65,942	(27,481)	(149,207)
6	77,064	16,767	67,590	(26,241)	(175,448)
7	77,064	17,187	69,280	(24,971)	(200,419)
8	77,064	17,616	71,012	(23,668)	(224,088)
9	77,064	18,057	72,787	(22,334)	(246,421)
10	77,064	18,508	74,607	(20,965)	(267,386)
11	77,064	18,971	76,472	(19,563)	(286,949)
12	77,064	19,445	78,384	(18,125)	(305,074)
13	77,064	19,931	80,344	(16,652)	(321,726)
14	77,064	20,430	82,352	(15,141)	(336,868)
15	77,064	20,940	84,411	(13,593)	(350,461)
16	77,064	21,464	86,521	(12,007)	(362,468)
17	77,064	22,000	88,684	(10,380)	(372,848)
18	77,064	22,550	90,902	(8,713)	(381,561)
19	77,064	23,114	93,174	(7,004)	(388,566)
20	77,064	23,692	95,503	(5,253)	(393,818)
	1,541,286	378,572	1,526,040	(393,818)	_

Debt Service @

**Option 6 Analysis** 

Sales value - homes		N/A
Total Sales		N/A
Assessed Value percent		N/A
Assessed Value		N/A
Tax Rate		N/A
Annual Property taxes		21,440
Annual Inflation		2.5%
Total Cost		715,211
Cont. & Mgmt	10.0%	71,521
Issuance Cost	8.0%	57,217
Amount of Debt		843,949

6.7216%

Rental - Inn

Annual School Costs	9,256	Estimated annual increase:	2.5%

56,727

29 apartments

	Annual	Annual	Annual	Net Rev.	Cumulative
Years	Debt Service	School Costs	Revenues	per year	Revenues
1	56,727	9,256	21,440	(44,543)	(44,543)
2	56,727	9,487	21,976	(44,238)	(88,781)
3	56,727	9,725	22,525	(43,926)	(132,706)
4	56,727	9,968	23,089	(43,606)	(176,312)
5	56,727	10,217	23,666	(43,278)	(219,590)
6	56,727	10,472	24,257	(42,942)	(262,531)
7	56,727	10,734	24,864	(42,597)	(305,128)
8	56,727	11,002	25,485	(42,244)	(347,372)
9	56,727	11,278	26,123	(41,882)	(389,254)
10	56,727	11,559	26,776	(41,510)	(430,764)
11	56,727	11,848	27,445	(41,130)	(471,894)
12	56,727	12,145	28,131	(40,740)	(512,634)
13	56,727	12,448	28,834	(40,340)	(552,975)
14	56,727	12,759	29,555	(39,931)	(592,906)
15	56,727	13,078	30,294	(39,511)	(632,416)
16	56,727	13,405	31,052	(39,081)	(671,497)
17	56,727	13,741	31,828	(38,639)	(710,136)
18	56,727	14,084	32,623	(38,187)	(748,324)
19	56,727	14,436	33,439	(37,724)	(786,047)
20	56,727	14,797	34,275	(37,249)	(823,296)
	1,134,532	236,441	547,677	(823,296)	

Town Costs per Option	Inn + Acad. Condos	Inn 15 Condos	Inn - 9 units Homes - 3	Homes - 4	Townhouses 15	Inn + Acad. Rental
	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Environmental Cost	494,729	494,729	494,729	494,729	494,729	494,729
Connector Building Demo	139,700	139,700	139,700	139,700	139,700	139,700
Other Demo	80,782	250,772	323,681	337,200	<u>337,200</u>	80,782
Other Demo s.f. Other Demo Cost / s.f. Other Demo Cost	9,759 \$8.28 80,782	30,295 \$8.28 250,772	39,103 \$8.28 323,681	53,783 \$6.27 337,200	53,783 \$6.27 337,200	9,759 \$6.27 61,185
Bid from 2015			Gross s.f.	\$ / s.f.		
Environmental Remediation - 2015	5 bid	494,729	68,366	\$7.24		
Demo of Connector Building - 201	5 bid	139,700	14,583	\$9.58		
Demo of other buildings - 2015 Bid	_ b	337,200	53,783	\$6.27		
Total Demo and Remediation - 20	15 bids:	971,629				

### Estimates of number of school aged children

In 2003 and 2004 Concord Square participated in a major study carried out by the Center for Urban and Regional Policy at Northeastern University in conjuction with the analysis related to the proposed passage of Smart Growth Zoning, Chapter 40R, and the related Smart Growth School Cost Insurance Supplement, Chapter 40S. The former was passed by the legislature and signed by the Governor in 2004 as Chapter 40R to the Mass General Laws, and the latter was passed and signed in 2005 as Chapter 40S. In both cases, the legislature, the Secretary of Administration and Finance, and the Governor accepted the school cost assumptions and the analysis that was prepared.

The number of School Aged Children assumed for various housing types was as follows:

Estimated number of School Age	ed Children (S Per Housing T	AC) ÿpe					
One Bedroom		0.045					
Two Bedroom		0.152					
Single Family Ho	me (3 BRs)	0.95					
Estimated Cost / SAC							
School Choice Re	evenue	5,000					
Other Costs, Averaged:	30.0%	1,500		(this is a gu	ess, and not ba	sed on any analys	is)
Budget Amount	per student:	6,500					
	Option 1 Inn + Acad. Condos	Option 2 Inn 15 Condos	Option 3 Inn - 9 units Homes - 3	Option 4 Homes - 4	Option 5 Townhouses 15	Option 6 Inn Rental	
Number of Units	s / type						
# 1 BR	15	8	6			8	
# 2 BR	14	7	3		15	7	
# Single Family	0		3	4			
Number of SAC	/ type						
1 BR	0.675	0.36	0.27	0	0	0.36	
2 BR	2.128	1.064	0.456	0	2.28	1.064	
Single Family	0	0	2.85	3.8	0	0	
Total per option	2.8	1.4	3.6	3.8	2.3	1.4	
Education Costs	18,220	9,256	23,244	24,700	14,820	9,256	

### Nichewaug Inn - Cost Benefit Analysis

### Based on Financial Feasibility Amounts

### **Anticipated Costs**

Environmental Remediation - 2015 bid			494,729	
Demo of Connector Building - 2015 bid			139,700	
Demo of other buildin	gs - 2015 Bi	d	337,200	
Total Demo and Ren	nediation -	2015 bids:	971,629	
Contingency, manag	gement	10.0%	97,163	(P
Costs of Issuance	-	8.0%	77,730	
Total Debt to be raise	d	-	1,146,522	
Rounded:			1,150,000	
Debt Service Calcula	ation:			
Amount of Loan		1,150,000		
Annual Interest Rate		3.0%		
Number of Months		20		
Monthly Pmt		6,442		
Annual Payment	6.7216%	77,298	(based on one a	annual payment)

\$16.42 per thousand

(Please see page 8 below for cost breakdown for each option)

## Bonding of Costs

Current Tax Rate

	Annual			Balance	Plus	Cumulative
Years	Debt Service	Interest	Principal	End of Year	Operations	Cost
				1,150,000		
1	77,298	34,500	42,798	1,107,202	1,200	78,498
2	77,298	33,216	44,082	1,063,120	1,236	157,032
3	77,298	31,894	45,404	1,017,715	1,273	235,603
4	77,298	30,531	46,767	970,949	1,311	314,213
5	77,298	29,128	48,170	922,779	1,351	392,861
6	77,298	27,683	49,615	873,165	1,391	471,550
7	77,298	26,195	51,103	822,061	1,433	550,281
8	77,298	24,662	52,636	769,425	1,476	629,055
9	77,298	23,083	54,215	715,210	1,520	707,874
10	77,298	21,456	55,842	659,368	1,566	786,737
11	77,298	19,781	57,517	601,851	1,613	865,648
12	77,298	18,056	59,243	542,609	1,661	944,607
13	77,298	16,278	61,020	481,589	1,711	1,023,616
14	77,298	14,448	62,850	418,738	1,762	1,102,676
15	77,298	12,562	64,736	354,002	1,815	1,181,790
16	77,298	10,620	66,678	287,325	1,870	1,260,957
17	77,298	8,620	68,678	218,646	1,926	1,340,181
18	77,298	6,559	70,739	147,908	1,983	1,419,462
19	77,298	4,437	72,861	75,047	2,043	1,498,803
20	77,298	2,251	75,047	(0)	2,104	1,578,206
Totals	1,545,961	395,961	1,150,000			

Option 1	Analysis	Academy Building Option 1 Cost Ben	plus Nichewa efits Analysis	ug Inn: Numb	per of units:	29	
	Total Sales value		9,612,330				
	Assessed Value	percent	90.0%				
	Assessed Value		8,651,097				
	Tax Rate		\$16.42				
	Annual Property t	taxes	142,051				
	Annual Inflation		2.50%	= Proposition	2 1/2 maximum a	annual increase in	tax levy.
	Total Cost		715,211				
	Cont. & Mgmt	10.0%	71,521				
	Issuance Cost	8.0%	57,217				
	Amount of Debt		843,949				
	Debt Service @	6.7216%	56,727				
	Annual School Co	osts	18,220	Estimated ar	nual increase:	2.5%	(please see p. 18 below for assumptions)
		Annual	Annual	Annual	Net Rev.	Cumulative	
	Years	Debt Service	School Costs	Revenues	per year	Revenues	
	1	56,727	18,220	142,051	67,105	67,105	
	2	56,727	18,675	145,602	70,201	137,306	
	3	56,727	19,142	149,242	73,374	210,679	
	4	56,727	19,620	152,973	76,626	287,306	
	5	56,727	20,111	156,798	79,960	367,266	
	6	56,727	20,614	160,718	83,377	450,643	
	7	56,727	21,129	164,736	86,880	537,523	
	8	56,727	21,657	168,854	90,470	627,994	
	9	56,727	22,199	173,075	94,150	722,144	
	10	56,727	22,754	177,402	97,922	820,066	
	11	56,727	23,323	181,837	101,788	921,854	
	12	56,727	23,906	186,383	105,751	1,027,605	

191,043

195,819

200,714

205,732

210,876

216,147

221,551

227,090

3,628,644

109,813

113,977

118,244

122,618

127,102

131,698

136,408

141,237

2,028,702

1,137,418

1,251,394

1,369,639

1,492,257

1,619,359

1,751,057

1,887,465 2,028,702

24,503

25,116

25,744

26,387

27,047 27,723

28,416

29,127

465,411

13

14

15

16

17

18

19

20

56,727

56,727

56,727

56,727

56,727

56,727

56,727

56,727

1,134,532

### Option 2 Analysis Nichewaug Inn - 15 Units

Total Sales value Assessed Value percer Assessed Value Tax Rate Annual Property taxes Annual Inflation	nt	5,652,150 90.0% 5,086,935 \$16.42 83,527 2.50%			
Cost of Env. & Demo		885.201			
Cont. & Mgmt	10.0%	88,520			
Issuance Cost	8.0%	70,816			
Amount of Debt		1,044,537			
Debt Service @	6.7216%	70,209			
Annual School Costs		9,256	Estimated an	inual increase:	2.5%
	Annual	Annual	Annual	Net Rev.	Cumulative
Years De	bt Service	School Costs	Revenues	per year	Revenues
				(	4
1	70,209	9,256	83,527	4,062	4,062
2	70,209	9,487	85,616	5,919	9,981
3	70,209	9,725	87,756	7,822	17,803
4	70,209	9,968	89,950	9,773	27,576
5	70,209	10,217	92,199	11,773	39,349
6	70,209	10,472	94,504	13,822	53,171
7	70,209	10,734	90,800	15,923	69,094
8	70,209	11,002	99,288	18,076	87,170
9	70,209	11,278	101,770	20,283	107,453
10	70,209	11,559	104,314	22,540	129,999
10	70,209	11,848	100,922	24,804	104,803
12	70,209	12,143	109,595	27,241	102,100
13	70,209	12,440	112,333	29,070	211,702
14	70,209	12,759	110,144	32,173	243,957
10	70,209	13,078	120.022	27 259	216,091
10	70,209	13,405	120,973	37,338 40.047	310,049
18	70,209	14 084	123,397	40,047	308,097
10	70,209	14,004	130 274	42,004	111 520
20	70,209	14 797	133 531	48 525	493 054
	,	,. 07		.0,020	-

### Option 3 Analysis Nichewaug Inn - 9 Units + 3 homes

	3,576,650
	1,167,075
	4,743,725
	90.0%
	4,269,353
	\$16.42
	70,103
	2.50%
	958,110
10.0%	95,811
8.0%	76,649
	1,130,570
6.7216%	75,992
	10.0% 8.0% 6.7216%

Annual School Costs		23,244	Estimated annual increase:		2.5%
Years	Annual Debt Service	Annual School Costs	Annual Revenues	Net Rev. per year	Cumulative Revenues
1	75,992	23,244	70,103	(29,133)	(29,133)
2	75,992	23,825	71,855	(27,962)	(57,095)
3	75,992	24,421	73,652	(26,761)	(83,856)
4	75,992	25,031	75,493	(25,530)	(109,387)
5	75,992	25,657	77,380	(24,269)	(133,655)
6	75,992	26,298	79,315	(22,976)	(156,631)
7	75,992	26,956	81,298	(21,650)	(178,281)
8	75,992	27,630	83,330	(20,292)	(198,573)
9	75,992	28,321	85,413	(18,899)	(217,472)
10	75,992	29,029	87,549	(17,472)	(234,944)
11	75,992	29,754	89,737	(16,009)	(250,953)
12	75,992	30,498	91,981	(14,509)	(265,462)
13	75,992	31,261	94,280	(12,972)	(278,434)
14	75,992	32,042	96,637	(11,397)	(289,831)
15	75,992	32,843	99,053	(9,782)	(299,613)
16	75,992	33,664	101,530	(8,127)	(307,740)
17	75,992	34,506	104,068	(6,430)	(314,170)
18	75,992	35,368	106,670	(4,691)	(318,861)
19	75,992	36,253	109,336	(2,908)	(321,769)
20	75,992	37,159	112,070	(1,081)	(322,850)
_	1,519,841	593,760	1,790,751	(322,850)	_

### Option 4 Analysis Four Single Family Homes - 12 bedrooms

Sales value - homes		389,025	per home
Total Sales		1,556,100	
Assessed Value percent		90.0%	
Assessed Value		1,400,490	
Tax Rate		\$16.42	
Annual Property taxes		22,996	
Annual Inflation		2.50%	
Total Cost		971,629	
Cont. & Mgmt	10.0%	97,163	
Issuance Cost	8.0%	77,730	
Amount of Debt		1,146,522	
Debt Service @	6.7216%	77,064	

Annual School Costs		24,700	Estimated an	2.5%	
Years	Annual Debt Service	Annual School Costs	Annual Revenues	Net Rev. per year	Cumulative Revenues
1	77,064	24,700	22,996	(78,768)	(78,768)
2	77,064	25,318	23,571	(78,811)	(157,579)
3	77,064	25,950	24,160	(78,855)	(236,434)
4	77,064	26,599	24,764	(78,899)	(315,333)
5	77,064	27,264	25,383	(78,945)	(394,278)
6	77,064	27,946	26,018	(78,992)	(473,270)
7	77,064	28,644	26,668	(79,040)	(552,311)
8	77,064	29,361	27,335	(79,090)	(631,400)
9	77,064	30,095	28,018	(79,140)	(710,541)
10	77,064	30,847	28,719	(79,192)	(789,733)
11	77,064	31,618	29,437	(79,246)	(868,979)
12	77,064	32,409	30,173	(79,300)	(948,279)
13	77,064	33,219	30,927	(79,356)	(1,027,635)
14	77,064	34,049	31,700	(79,413)	(1,107,048)
15	77,064	34,900	32,493	(79,472)	(1,186,520)
16	77,064	35,773	33,305	(79,532)	(1,266,052)
17	77,064	36,667	34,138	(79,594)	(1,345,646)
18	77,064	37,584	34,991	(79,657)	(1,425,303)
19	77,064	38,524	35,866	(79,722)	(1,505,025)
20	77,064	39,487	36,763	(79,788)	(1,584,813)
_	1,541,286	630,953	587,426	(1,584,813)	

### Option 5 Analysis New Construction - Townhouses - # units: 15

Sales value - homes Total Sales Assessed Value percent Assessed Value Tax Rate Annual Property taxes Annual Inflation		289,100 4,336,500 90.0% 3,902,850 \$16.42 64,085 2.50%	/ townhouse
Total Cost Cont. & Mgmt Issuance Cost Amount of Debt Debt Service @	10.0% 8.0%_ 6.7216%	971,629 97,163 77,730 1,146,522 77,064	

Annual School Costs Estimated annual increase: 2.5% 14,820 Annual Annual Annual Net Rev. Cumulative Years Debt Service School Costs Revenues per year Revenues 77,064 14,820 64,085 (27, 800)1 (27, 800)2 77,064 15,191 65,687 (26,568) (54,367) 3 77,064 67,329 15,570 (25,305) (79,673) 4 77,064 69,012 15,960 (24,012) (103, 684)5 77,064 70,738 16,359 (22,685) (126, 370)77,064 72,506 6 16,767 (21,326) (147, 695)7 77.064 17,187 74.319 (19, 932)(167, 628)8 77,064 17,616 76,177 (18,504) (186, 131)9 77,064 18,057 78,081 (17,040) (203,171) 10 77,064 18,508 80,033 (15,539) (218,711) 11 77,064 18,971 82,034 (232,712)(14,001)12 77,064 19,445 84,085 (12,425) (245, 137)13 77,064 19,931 86,187 (10,809) (255, 945)77,064 88,342 14 20,430 (9,152) (265,097) 15 90,550 77,064 20,940 (7, 454)(272, 552)16 77,064 21,464 92,814 (5,714) (278,266) 17 77,064 22,000 95,134 (3,930)(282,196) 18 77,064 22,550 97,513 (2,102)(284, 299)19 77,064 23,114 99,950 (228) (284, 527)20 77,064 23,692 102,449 1,693 (282, 834)378,572 1,541,286 1,637,024 (282, 834)

Option 6 Analysis	Rental - Inn		29 apartments
Sales value - hor	nes	N/A	
Total Sales		N/A	
Assessed Value	percent	N/A	
Assessed Value		N/A	
Tax Rate		N/A	
Annual Property	taxes	21,440	
Annual Inflation		2.50%	
Total Cost		715,211	
Cont. & Mgmt	10.0%	71,521	
Issuance Cost	8.0%	57,217	
Amount of Debt	-	843,949	-
Debt Service @	6.7216%	56,727	

Annual School Costs	9,256	Estimated annual increase:	2.5%

	Annual	Annual	Annual	Net Rev.	Cumulative
Years	Debt Service	School Costs	Revenues	per year	Revenues
1	56,727	9,256	21,440	(44,543)	(44,543)
2	56,727	9,487	21,976	(44,238)	(88,781)
3	56,727	9,725	22,525	(43,926)	(132,706)
4	56,727	9,968	23,089	(43,606)	(176,312)
5	56,727	10,217	23,666	(43,278)	(219,590)
6	56,727	10,472	24,257	(42,942)	(262,531)
7	56,727	10,734	24,864	(42,597)	(305,128)
8	56,727	11,002	25,485	(42,244)	(347,372)
9	56,727	11,278	26,123	(41,882)	(389,254)
10	56,727	11,559	26,776	(41,510)	(430,764)
11	56,727	11,848	27,445	(41,130)	(471,894)
12	56,727	12,145	28,131	(40,740)	(512,634)
13	56,727	12,448	28,834	(40,340)	(552,975)
14	56,727	12,759	29,555	(39,931)	(592,906)
15	56,727	13,078	30,294	(39,511)	(632,416)
16	56,727	13,405	31,052	(39,081)	(671,497)
17	56,727	13,741	31,828	(38,639)	(710,136)
18	56,727	14,084	32,623	(38,187)	(748,324)
19	56,727	14,436	33,439	(37,724)	(786,047)
20	56,727	14,797	34,275	(37,249)	(823,296)
	1,134,532	236,441	547,677	(823,296)	

Town Costs per Option	Inn + Acad. Condos	Inn 15 Condos	Inn - 9 units Homes - 3	Homes - 4	Townhouses 15	Inn Rental
	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Environmental Cost	494,729	494,729	494,729	494,729	494,729	494,729
Connector Building Demo	139,700	139,700	139,700	139,700	139,700	139,700
Other Demo	80,782	250,772	323,681	337,200	337,200	80,782
Total Costs	715,211	885,201	958,110	971,629	971,629	715,211
Other Demosf	9,759	30,295	39,103	53,783	53,783	9 759
Other Demo Cost / s.f.	\$8.28	\$8.28	\$8.28	\$6.27	\$6.27	\$6.27
Other Demo Cost	80,782	250,772	323,681	337,200	337,200	61,185
Bid from 2015			Gross s f	\$/sf		
Environmental Remediation - 2015 bio	4	494 729	68,366	\$7 24		
Demo of Connector Building - 2015 bi	d	139.700	14.583	\$9.58		
Demo of other buildings - 2015 Bid	-	337.200	53,783	\$6.27		
Total Demo and Remediation - 2015 b	oids:	971,629	,	••		

### Estimates of number of school aged children

In 2003 and 2004 Concord Square participated in a major study carried out by the Center for Urban and Regional Policy at Northeastern University in conjuction with the analysis related to the proposed passage of Smart Growth Zoning, Chapter 40R, and the related Smart Growth School Cost Insurance Supplement, Chapter 40S. The former was passed by the legislature and signed by the Governor in 2004 as Chapter 40R to the Mass General Laws, and the latter was passed and signed in 2005 as Chapter 40S. In both cases, the legislature, the Secretary of Administration and Finance, and the Governor accepted the school cost assumptions and the analysis that was prepared.

The number of School Aged Children assumed for various housing types was as follows:

### Estimated number of School Aged Children (SAC) per housing type:

	One Bedroom Two Bedroom		0.045 0.152				
	Single Family Home	e (3 BRs)	0.95				
Estimated Cos	st / SAC						
	School Choice Reve	enue	5.000				
Ot	Other Costs, Averaged 30.0%		1.500	(this is a quess, and not based on any analysis)			
-	Budget Amount per student:		6,500	(	,		,
		Option 1 Inn + Acad. Condos	Option 2 Inn 15 Condos	Option 3 Inn - 9 units Homes - 3	Option 4 Homes - 4	Option 5 Townhouses 15	Option 6 Inn Rental
Number of Un	its / type						
	# 1 BR	15	8	6			8
	# 2 BR	14	7	3		15	7
	# Single Family	0		3	4	0	
Number of SA	C / type						
	1 BR	0.675	0.36	0.27	0	0	0.36
	2 BR	2.128	1.064	0.456	0	2.28	1.064
	Single Family	0	0	2.85	3.8	0	0
	Total per option	2.8	1.4	3.6	3.8	2.3	1.4
	Education Costs	18,220	9,256	23,244	24,700	14,820	9,256

### Nichewaug Inn

-		Pro Forma		Analysis A	Analysis B		
Sources of Fu	inds		Sale Prices at	Bonz Study Plus 10.0%	Bonz Study		
						Plus	
	Sale Proceeds, Nichewaug @ \$ / s.	f.		2,960,650	5,652,150	110.0%	
	Sale Proceeds, Academy Building			2,592,975	3,960,180	68.0%	
	Less Cost of Sales @		6.0%	(333,218)	(576,740)		
	Other			0	0		
	Total Sources			5,220,408	9,035,590		
Uses of Funds	5						
	Acquisition from the Town			1	1		
	Public Water Supply			88,000	88,000		
	Septic Fields			50,000	50,000		
	Soft Costs @ this % of Construction	1:	20.0%	1,129,806	1,129,806		
	Academy Construction Costs	20,536	\$112.54	2,311,150	2,311,150		
	Nichewaug Const. Costs	23,488	\$142.11	3,337,880	3,337,880		
	Construction Contingency @		10.0%	564,903	564,903		
	Misc.			50,000	50,000		
				7,531,740	7,531,740		
	Total Sources			5,220,408	9,035,590		
	Total Uses			(7,531,740)	(7,531,740)		
	Developer Profit			(2,311,333)	1,503,850		
	Profit as % of Costs			-30.7%	20.0%		
Summary of A	Assumptions		Academy	Nichewaug	Academy	Nichewaug	
	Sale Price - 1 BRs		\$153,175	\$162,903	\$233,940	\$310,997	
	Sale Price - 2 BRs		\$217,250	\$236,775	\$331,800	\$452,025	
	Sale Price per saleable s.f.		\$192.50	\$192.50	\$294.00	\$367.50	
ſ	Gross s.f.		20,060	23,488	7	8	1 BR Units
Same for	Saleable s.f.		13,470	15,380	7	7	2 BR Units
Both {	Efficiency		67.1%	65.5%	14	15	Total
Analyses	Const. Cost Est. / gross s.f.		\$115.21	\$142.11			Total Units
- (	Const. Cost Est. / saleable s.f.		\$171.58	\$217.03			Total BRs

29 43

### **Development Summary**

### Requires off-site water supply

Sale Prices	Inn	Academy Building
Bonz plus	10.0%	10.0%
One BR Units	\$162,903	\$153,175
Two BR Units	\$236,775	\$217,250
Price per s.f.	\$193	\$193
Bonz plus	110.0%	68.0%
One BR Units	310,997	233,940
Two BR Units	452,025	331,800
Price per s.f.	\$368	\$294

	Inn	Academy
1 BR Size	846	796
2 BR Size	1,230	1,129
# 1 BR Units	8	7
# 2 BR Units	7	7
Total Units	15	14

Requires off-site water supply

Sources of Fund	s	Analysis A	Analysis B	
	Bonz +			Bonz +
Nichewaug Sales	10.0%	2,960,650	5,652,150	110.0%
Academy Sales	10.0%	2,592,975	3,960,180	68.0%
Cost of Sales @	6.0%	(333,218)	(576,740)	
Total Sources		5,220,408	9,035,590	
Uses of Funds				
Acquisition		\$1.00	\$1.00	
Water & Septic		138.000	138.000	
Soft Costs		1,129,806	1,129,806	
Academy Const.	\$113	2,311,150	2,311,150	
Nichewaug Const.	\$142	3,337,880	3,337,880	
Const. Conting.	10.0%	564,903	564,903	
Misc.		50,000	50,000	
		7,531,740	7,531,740	
Total Sources		5,220,408	9,035,590	
Total Uses		(7.531.740)	(7.531.740)	
Developer Profit		(2,311,333)	1,503,850	
Profit as % of Costs		-30.7%	20.0%	
#### **Basic Information**

Lot Size in Acres	6.67
Lot Size in square feet:	290,545
Existing Buildings - Gross s.f.	68,366
Proposed Demolition	(24,342)
Environmental Remediation - 2015 bid	494,729
Demo of Connector Building - 2015 bid	139,700
Demo of other buildings - 2015 Bid	337,200
Total Demo and Remediation - 2015 bids:	971,629

Demo Cost Per s.f.	Total	Connector
Gross s.f. Total Demo Cost	68,366 476,900	14,583 139,700
Demo Cost per gross s.f. Average Cost:	\$6.98 <b>\$8.28</b>	\$9.58

					Option 1 Proposed	Gross after		
Building Analysis			# Stories	Gross s.f.	Demolition	Demo	Academy	Nichewaug
Academy Bu	ilding							
	Footprint	10,268	2.0	20,536		20,536	20,536	
	Connector	4,861	3.0	14,583	14,583	0		
Nichewaug Ir	าท							
-	Dining Wing	2,936	3.0	8,808	0	8,808		8,808
	Kitchen Wing	2,353	3.0	7,059	7,059	0		0
	Music Room	2,306	1.0	2,306		2,306		2,306
	Main Building	5,198	2.9	15,074	2,700	12,374		12,374
			Doroont	68,366	24,342	44,024	20,536	23,488
			Fercent		35.0%	04.4%		
	Other Information	Footprint	# Stories	total s.f.				
	South Addition	900	3.0	2,700	(Mother Super	rior Wing)		
	Connector Building	4,861	3.0	14,583				
	Demo Cost Bid, 201	5			\$139,700			

Less discount for private work / no prevailing wages:	20.0%
Projected Demo Cost for	Developer

Plus Inflation @ # yrs:

Projected Cost, 2015 Bid @ \$ / s.f.

\$28.74

2.0

Projected Demo cost to Town:

Price per s.f.

Total Demo s.f.

\$233,188

\$13,991 \$247,179

(\$49,436) \$197,743

\$9.58

24,342

\$9.58

6.0%

#### Condominum Development & Sale Analysis

Academy Bu	ilding	GSF	NSF	Eff	1 Bed	2 Bed	Total	
	Floor 1	10,320	6,160	60%	2	4	6	
	Floor 2	9,740	7,310	75%	5	3	8	
	Total	20,060	13,470	67%	7	7	14	
	Total Bedrooms				7	14	21	
Nichewaug I	nn	GSF	NSF	Eff	1 Bed	2 Bed	Total	
	Floor 1	9,228	4,550	49%	4	1	5	Dormer
	Floor 2	6,997	5,700	81%	2	3	5	Loss Factor
	Floor 3	6,297	5,130	81%	2	3	5	90.0%
	Total	22,522	15,380	68%	8	7	15	
	Total Bedrooms				8	14	22	
Combined		GSF	NSF	Eff	1 Bed	2 Bed	Total	
	Total	42.582	28.850	68%	15	14	29	
	Total Bedrooms	,	-,		15	28	43	

# Construction Cost Estimate

Water Supply					То	То
	Offsite Well Costs		80,000		Academy	Nichewaug
	Contingency @	10.0%	8,000		50.0%	50.0%
	Total		88,000		44,000	44,000
Septic Field						
	Estimated Cost		80,000		40,000	40,000
		Unit	\$ per Unit			
Construction Costs		s.f.	\$ / s.f.	Amount		
Academy Buil	ding					
	West Entrance	600	\$50.00	30,000		
	Elevator			80,000		
	Housing Unit Construction	13,470	\$125.00	1,683,750		
	Common Area Construction	6,590	\$60.00	395,400		
	Site and Landscaping			50,000		
	Parking Spaces	24	\$3,000.00	72,000		
			Subtotal		2,311,150	
Nichewaug Ini	n					
	Elevator			125,000		
	Housing Unit Construction	15,380	\$150.00	2,307,000		
	Music Room Construction	2,306	\$125.00	288,250		
	Common Area Construction	4,836	\$100.00	483,630		
	Site and Landscaping			50,000		
	Parking Spaces	28	\$3,000.00	84,000		
			Subtotal		3,337,880	
			Total Constructi	on	5,649,030	

The follow	ing is for A	nalysis A				Bonz				
demy Building	Unit 3	Bedrooms	Saleable S.F. 1 BRs	Saleable S.F. 2 BRs	Bonz Sale Price per s.f.	Price Per Unit	Price Adjustment 10.0%	Adjusted Price 1 BRs	Adjusted Price 2 BRs	Total Sales
Floor 1	A101	1	820		\$175.00	143,500	14,350	157,850		157,850
	A102	1	840		\$175.00	147,000	14,700	161,700		161,700
	A103	2		1,200	\$175.00	210,000	21,000		231,000	231,000
	A104	2		1,100	\$175.00	192,500	19,250		211,750	211,750
	A 105	2		1,100	\$175.00	192,500	19,250		211,750	211,750
	A106	2		1,100	\$175.00	192,500	19,250		211,750	211,750
Floor 2	A 201	1	820		\$175.00	143,500	14,350	157,850		157,850
	A 202	1	840		\$175.00	147,000	14,700	161,700		161,700
	A 203	2		1,200	\$175.00	210,000	21,000		231,000	231,000
	A 204	2		1,100	\$175.00	192,500	19,250		211,750	211,750
	A 205	2		1,100	\$175.00	192,500	19,250		211,750	211,750
	A 206	1	750		\$175.00	131,250	13,125	144,375		144,375
	A 207	1	750		\$175.00	131,250	13,125	144,375		144,375
	A 208	1	750		\$175.00	131,250	13,125	144,375		144,375
Totals	14	21	5,570	7,900		2,357,250	235,725	1,072,225	1,520,750	2,592,975
Number of Unit	ts		7	7				153,175	217,250	

					Bonz			Adjusted	Adjusted	Total
			Saleable	Saleable	Sale Price	Price	Price	Price	Price	Sales
	Unit	Bedrooms	S.F.	S.F.	per s.f.	per unit	Adjustment	1 BRs	2 BRs	
Nichewaug Inn			1 BRs	2 BRs			10.0%			
Floor 1	N 101	1	800		\$175.00	140,000	14,000	154,000		154,000
	N 102	1	900		\$175.00	157,500	15,750	173,250		173,250
	N 103	1	750		\$175.00	131,250	13,125	144,375		144,375
	N 104	2	900		\$175.00	157,500	15,750	173,250		173,250
	N 105	2		1200	\$175.00	210,000	21,000		231,000	231,000
Floor 2	N 201	2		1400	\$175.00	245,000	24,500		269,500	269,500
	N 202	1	900		\$175.00	157,500	15,750	173,250		173,250
	N 203	2		1300	\$175.00	227,500	22,750		250,250	250,250
	N 204	1	900		\$175.00	157,500	15,750	173,250		173,250
	N 205	2		1200	\$175.00	210,000	21,000		231,000	231,000
Floor 3	N 301	2		1260	\$175.00	220,500	22,050		242,550	242,550
	N 302	1	810		\$175.00	141,750	14,175	155,925		155,925
	N 303	2		1170	\$175.00	204,750	20,475		225,225	225,225
	N 304	2	810		\$175.00	141,750	14,175	155,925		155,925
	N 305	2		1080	\$175.00	189,000	18,900		207,900	207,900
Total	15	24	6770	8610		2,691,500	269,150	1,303,225	1,657,425	2,960,650
			8	7						

Summary of units and sale	e prices	Avg. Price		Avg. Price		Total	Total Sale	Saleable s.f.	Avg Price per s.f.
	#1 BRs	1 BRs	# 2 BRs	2 BRs	Total Units	Bedrooms	Proceeds		
Academy	7	153,175	7	217,250	14	21	2,592,975	13,470	\$192.50
Nichewaug Inn	8	162,903	7	236,775	15	24	2,960,650	15,380	\$192.50
Totals	15	158,363	14	227,013	29	45	5,553,625		

## The following is for Analysis B

					Bonz	Price		Adjusted	Adjusted	Total
Academy Building			Saleable	Saleable	Sale Price	Per 1 BR	Price	Price	Price	Sales
	Unit 3	Bedrooms	S.F.	S.F.	per s.f.	Unit	Adjustment	1 BRs	2 BRs	
			1 BRs	2 BRs			68.0%			
Floor 1	A101	1	820		\$175.00	143,500	97,580	241,080		241,080
	A102	1	840		\$175.00	147,000	99,960	246,960		246,960
	A103	2		1,200	\$175.00	210,000	142,800		352,800	352,800
	A104	2		1,100	\$175.00	192,500	130,900		323,400	323,400
	A 105	2		1,100	\$175.00	192,500	130,900		323,400	323,400
	A106	2		1,100	\$175.00	192,500	130,900		323,400	323,400
Floor 2	A 201	1	820		\$175.00	143,500	97,580	241,080		241,080
	A 202	1	840		\$175.00	147,000	99,960	246,960		246,960
	A 203	2		1,200	\$175.00	210,000	142,800		352,800	352,800
	A 204	2		1,100	\$175.00	192,500	130,900		323,400	323,400
	A 205	2		1,100	\$175.00	192,500	130,900		323,400	323,400
	A 206	1	750		\$175.00	131,250	89,250	220,500		220,500
	A 207	1	750		\$175.00	131,250	89,250	220,500		220,500
	A 208	1	750		\$175.00	131,250	89,250	220,500		220,500
Totals	14	21	5,570	7,900 13,470		2,357,250	1,602,930	1,637,580	2,322,600	3,960,180
Number of Units			7	7				233,940	331,800	

					Bonz			Adjusted	Adjusted	Total
			Saleable	Saleable	Sale Price	Price	Price	Price	Price	Sales
Nichewaug Inn	Unit	Bedrooms	S.F.	S.F.	per s.f.	per unit	Adjustment	1 BRs	2 BRs	
							110.0%			
Floor 1	N 101	1	800		\$175.00	140,000	154,000	294,000		294,000
	N 102	1	900		\$175.00	157,500	173,250	330,750		330,750
	N 103	1	750		\$175.00	131,250	144,375	275,625		275,625
	N 104	1	900		\$175.00	157,500	173,250	330,750		330,750
	N 105	2		1200	\$175.00	210,000	231,000		441,000	441,000
Floor 2	N 201	2		1400	\$175.00	245,000	269,500		514,500	514,500
	N 202	1	900		\$175.00	157,500	173,250	330,750		330,750
	N 203	2		1300	\$175.00	227,500	250,250		477,750	477,750
	N 204	1	900		\$175.00	157,500	173,250	330,750		330,750
	N 205	2		1200	\$175.00	210,000	231,000		441,000	441,000
Floor 3	N 301	2		1260	\$175.00	220,500	242,550		463,050	463,050
	N 302	1	810		\$175.00	141,750	155,925	297,675		297,675
	N 303	2		1170	\$175.00	204,750	225,225		429,975	429,975
	N 304	1	810		\$175.00	141,750	155,925	297,675		297,675
	N 305	2		1080	\$175.00	189,000	207,900		396,900	396,900
Total	15	22	6,770	8,610		2,691,500	2,960,650	2,487,975	3,164,175	5,652,150
			8	7						
							Total	Saleable	Avg Price	Avg Price
Summary of units and sale	prices	Avg. Price	# 2 BBo	AVG. Price	Total Unita	I otal Redreame	Sale	s.t.	per s.t.	per unit
	# I BKS	IBRS	# 2 BRS	2 BRS	i otai Units	Deurooms	Froceeds			
Academy	7	233,940	7	331,800	14	21	3,960,180	13,470	\$294.00	282,870
Nichewaug Inn	8	310,997	7	452,025	15	22	5,652,150	15,380	\$367.50	376,810

783,825

29

43

9,612,330

Totals

15

544,937

14

#### Academy, Analysis B, Summary

	Unit #	Bedrooms	Saleable S F	Sale Price	Sale Price
	onic #	Dearbonis	0		
	A 4 0 4	4	020	044.000	¢004
	ATUT	I	820	241,000	φ294
	A102	1	840	246,960	\$294
	A103	2	1,200	352,800	\$294
	A104	2	1,100	323,400	\$294
	A 105	2	1,100	323,400	\$294
	A106	2	1,100	323,400	\$294
Floor 2	A 201	1	820	241,080	\$294
	A 202	1	840	246,960	\$294
	A 203	2	1,200	352,800	\$294
	A 204	2	1,100	323,400	\$294
	A 205	2	1,100	323,400	\$294
	A 206	1	750	220,500	\$294
	A 207	1	750	220,500	\$294
	A 208	1	750	220,500	\$294
Totals	14	21	13,470	3,960,180	
Number of Units			14	14	

## Nichewaug Analysis B, Summary

		Saleable	Sale Price	Sale Price
Unit #	Bedrooms	S.F.		per s.f.
N 101	1	800	294,000	\$367.50
N 102	1	900	330,750	\$367.50
N 103	1	750	275,625	\$367.50
N 104	1	900	330,750	\$367.50
N 105	2	1,200	441,000	\$367.50
N 201	2	1,400	514,500	\$367.50
N 202	1	900	330,750	\$367.50
N 203	2	1,300	477,750	\$367.50
N 204	1	900	330,750	\$367.50
N 205	2	1,200	441,000	\$367.50
N 301	2	1,260	463,050	\$367.50
N 302	1	810	297,675	\$367.50
N 303	2	1,170	429,975	\$367.50
N 304	1	810	297,675	\$367.50
N 305	2	1,080	396,900	\$367.50
	22	15,380	5,652,150	

Nichewaug	Inn							
-		Pro Forma		Analysis A	Analysis B			
Sources of Fr	undo		Sale Prices at	Bonz Study Plus	Bonz Study Plus			
Sources of Fi	unds			10.0%	110.0%			
	Sale Proceeds, Nichewaug @ \$ / s	s.f.	6.0%	2,960,650	5,652,150			
	Other		0.078	(177,009)	(553,123)			
	Total Sources	5		2,783,011	5,313,021			
Uses of Fund	S							
	Acquisition from the Town			1	1			
	Public Water Supply			44,000	44,000			
	Septic Fields			40,000	40,000			
	Soft Costs @ this % of Construction	on:	20.0%	667,576	667,576			
	Nichewaug Const. Costs	23,488	\$142.11	3,337,880	3,337,880			
	Construction Contingency @		10.0%	333,788	333,788			
	Misc.			25,000	25,000			
				4,448,245	4,448,245			
	Total Sources			2,783,011	5,313,021			
	Total Uses			(4,448,245)	(4,448,245)			
	Developer Profit			(1,665,234)	864,776			
	Profit as % of Costs			-37.4%	19.4%			
Summary of A	Assumptions			Nichewaug		Nichewauç	J	
	Sale Price - 1 BRs			\$162,903		\$310,997		
	Sale Price - 2 BRs			\$236,775		\$452,025		
	Sale Price per saleable s.f.			\$192.50		\$367.50		
ſ	Gross s.f.			23,488		8	1 BR Units	
Same for	Saleable s.f.			15,380		7	2 BR Units	
Both {	Efficiency			65.5%		15	Total	
Analyses	Const. Cost Est. / gross s.f.			\$142.11			Total Units	15
L	Const. Cost Est. / saleable s.f.			\$217.03			Total BRs	22

Nichewaug	
Inn	
Sale Prices	# Units

Bonz plus	10.0%	
One BR Units	\$162,903	8
Two BR Units	\$236,775	7
Price per s.f.	\$193	15

-	
110.0%	
310,997	846
452,025	1,230
\$368	
	110.0% 310,997 452,025 \$368

Sources of Fund	S	Analysis A	Analysis B		
	Bonz +	10.0%	110.0%		
Nichewaug Sales		2,960,650	5,652,150		
Cost of Sales @	6.0%	(177,639)	(339,129)		
Total Sources		2,783,011	5,313,021		
Uses of Funds					
Acquisition		1	1		
Water & Septic		84,000	84,000		
Soft Costs		667,576	667,576		
Nichewaug Const.	\$142	3,337,880	3,337,880		
Const. Conting.	10.0%	333,788	333,788		
Misc.		25,000	25,000		
		4,448,245	4,448,245		
Total Sources		2,783,011	5,313,021		
Total Uses		(4,448,245)	(4,448,245)		
Developer Profit		(1,665,234)	864,776		
Profit as % of Costs		-37.4%	19.4%		

#### **Basic Information**

L	ot Size in Ac	res		6.67								
L	ot Size in squ	uare feet:		290,545								
E	Existing Buildi	ngs - Gross s.f.		68,366								
F	Proposed Den	nolition		(44,878)								
E	Environmenta	Remediation - 2015	bid	494,729								
C	Demo of Conr	nector Building - 2015	5 bid	139,700								
0	Demo of other	<sup>-</sup> buildings - 2015 Bid	l _	337,200								
Т	Total Demo ar	nd Remediation - 201	15 bids:	971,629								
[	Demo Cost P	er s.f.		Total	Connector							
		Gross s.f.		68,366	14,583							
		Total Demo Cost	_	476,900	139,700							
		Demo Cost per gro	ss s.f.	\$6.98	\$9.58							
		Average Cost:		\$8.28								
						Option 1	Gross					
						Proposed	after					
Building	Analysis			# Stories	Gross s.f.	Demolition	Demo	Academy	Nichewaug			
Å	Academy Bui	ilding										
		Footprint	10,268	2.0	20,536	20,536	0	0				
		Connector	4,861	3.0	14,583	14,583	0					
M	Nichewaug In	n										
		Dining Wing	2,936	3.0	8,808	0	8,808		8,808			
		Kitchen Wing	2,353	3.0	7,059	7,059	0		0			
		Music Room	2,306	1.0	2,306		2,306		2,306			
		Main Building	5,198	2.9	15,074	2,700	12,374		12,374			
				Porcont	68,366	44,878 65.6%	23,488	0	23,488			
				Fercent		05.076	54.470					
		South Addition	Footprint	# Stories	s.f.							
			900	3.0	2,700	(Mother Super	ior Wing)					
		Demolition Costs										
		Price per s.f.			\$8.28							
		Total Demo s.f.			44,878		Dise	count for Priv	ate Developer	20.0%	(\$78,755)	
		Projected Cost, 207	15 Bid @ \$ / s.f.		\$8.28	\$371,485		Projected	Demo Cost for	Developer	\$315,019	
		Plus Inflation @ # y	/rs:	2	6.0%	\$22,289						
			Projected	d Demo Cost fo	or Town	\$393,774						

#### Condominum Development & Sale Analysis

Nichewaug Inn	GSF	NSF	Eff	1 Bed	2 Bed	Total	
Floor 1	9,228	4,550	49%	4	1	5	Dormer
Floor 2	6,997	5,700	81%	2	3	5	Loss Factor
Floor 3	6,297	5,130	81%	2	3	5	90.0%
Total	22,522	15,380	68%	8	7	15	
Total Bedrooms				8	14	22	

## **Construction Cost Estimate**

Water Supply						
						Nichewaug
	Offsite Well Costs			80,000		Share
	Contingency @		10.0%	8,000		50.0%
		Total		88,000		44,000
Septic Field						
-	Estimated Cost			80,000		40,000
Construction Costs			Unit	\$ per Unit		
			s.f.	\$ / s.f.	Amount	
Nichewaug In	n					
	Elevator				125,000	
	Housing Unit Construct	ion	15,380	\$150.00	2,307,000	
	Music Room Constructi	ion	2,306	\$125.00	288,250	
	Common Area Constru	ction	4,836	\$100.00	483,630	
	Site and Landscaping				50,000	
	Parking Spaces	2	28	\$3,000.00	84,000	
	0			Subtotal	,	3,337,880
				Total Constructi	ion	3,337,880

# The following is for Analysis A

					Bonz			Adjusted	Adjusted	Total
Nichewaug Inn			Saleable	Saleable	Sale Price	Price	Price	Price	Price	Sales
	Unit #	Bedrooms	S.F.	S.F.	per s.f.	per unit	Adjustment 10.0%	1 BRs	2 BRs	
Floor 1	N 101	1	800		\$175.00	140,000	14,000	154,000		154,000
	N 102	1	900		\$175.00	157,500	15,750	173,250		173,250
	N 103	1	750		\$175.00	131,250	13,125	144,375		144,375
	N 104	2	900		\$175.00	157,500	15,750	173,250		173,250
	N 105	2		1,200	\$175.00	210,000	21,000		231,000	231,000
Floor 2	N 201	2		1,400	\$175.00	245,000	24,500		269,500	269,500
	N 202	1	900		\$175.00	157,500	15,750	173,250		173,250
	N 203	2		1,300	\$175.00	227,500	22,750		250,250	250,250
	N 204	1	900		\$175.00	157,500	15,750	173,250		173,250
	N 205	2		1,200	\$175.00	210,000	21,000		231,000	231,000
Floor 3	N 301	2		1,260	\$175.00	220,500	22,050		242,550	242,550
Dormer factor	N 302	1	810		\$175.00	141,750	14,175	155,925		155,925
90.0%	N 303	2		1,170	\$175.00	204,750	20,475		225,225	225,225
	N 304	2	810		\$175.00	141,750	14,175	155,925		155,925
	N 305	2		1,080	\$175.00	189,000	18,900		207,900	207,900
Total	15	24	6,770	8,610		2,691,500	269,150	1,303,225	1,657,425	2,960,650

8 7

Summary of units and sale	prices	Avg. Price		Avg. Price		Total	Total Sale	Saleable s.f.	Avg Price per s.f.
	#1 BRs	1 BRs	# 2 BRs	2 BRs	Total Units	Bedrooms	Proceeds		
Nichewaug Inn	8	162,903	7	236,775	15	24	2,960,650	15,380	\$192.50
Totals	8	162,903	7	236,775	15	24	2,960,650		

# The following is for Analysis B

					Bonz			Adjusted	Adjusted	Total
Nichewaug Inn			Saleable	Saleable	Sale Price	Price	Price	Price	Price	Sales
	Unit	Bedrooms	S.F.	S.F.	per s.f.	per unit	Adjustment 110.0%	1 BRs	2 BRs	
Floor 1	N 101	1	800		\$175.00	140,000	154,000	294,000		294,000
	N 102	1	900		\$175.00	157,500	173,250	330,750		330,750
	N 103	1	750		\$175.00	131,250	144,375	275,625		275,625
	N 104	1	900		\$175.00	157,500	173,250	330,750		330,750
	N 105	2		1,200	\$175.00	210,000	231,000		441,000	441,000
Floor 2	N 201	2		1,400	\$175.00	245,000	269,500		514,500	514,500
	N 202	1	900		\$175.00	157,500	173,250	330,750		330,750
	N 203	2		1,300	\$175.00	227,500	250,250		477,750	477,750
	N 204	1	900		\$175.00	157,500	173,250	330,750		330,750
	N 205	2		1,200	\$175.00	210,000	231,000		441,000	441,000
Floor 3	N 301	2		1,260	\$175.00	220,500	242,550		463,050	463,050
	N 302	1	810		\$175.00	141,750	155,925	297,675		297,675
Dormer factor	N 303	2		1,170	\$175.00	204,750	225,225		429,975	429,975
90.0%	N 304	1	810		\$175.00	141,750	155,925	297,675		297,675
	N 305	2		1,080	\$175.00	189,000	207,900	·	396,900	396,900
Total	15	22	6,770	8,610		2,691,500	2,960,650	2,487,975	3,164,175	5,652,150
		Avg. Size	8 846	7 1,230						
Summary of units and sale	e prices	Avg. Price	# 2 PPo	Avg. Price	Total Unita	Total	Total Sale	Saleable s.f.	Avg Price per s.f.	Avg. Price per unit
	#1 BKS	TBRS	# 2 BKS	2 BRS	rotai Units	Bedrooms	Proceeds			
Nichewaug Inn	8	310,997	7	452,025	15	22	5,652,150	15,380	\$367.50	376,810
Totals	8	310,997	7	452,025	15	22	5,652,150	15,380 Avg. Size pe	\$367.50 r unit	376,810 <b>1,025</b>

## Nichewaug, Analysis B, Summary

			Saleable	Sale Price	Sale Price
	Unit #	Bedrooms	S.F.		per s.f.
Floor 1	N 101	1	800	294,000	\$368
	N 102	1	900	330,750	\$368
	N 103	1	750	275,625	\$368
	N 104	1	900	330,750	\$368
	N 105	2	1,200	441,000	\$368
Floor 2	N 201	2	1,400	514,500	\$368
	N 202	1	900	330,750	\$368
	N 203	2	1,300	477,750	\$368
	N 204	1	900	330,750	\$368
	N 205	2	1,200	441,000	\$368
Floor 3	N 301	2	1,260	463,050	\$368
	N 302	1	810	297,675	\$368
Dormer factor	N 303	2	1,170	429,975	\$368
90.0%	N 304	1	810	297,675	\$368
	N 305	2	1,080	396,900	\$368
Total	15	22	15,380	5,652,150	\$368

## Nichewaug Inn

U	I	Pro Forma		Analysis A	Analysis B	
Sources of Fu	inds		Sale Prices at	Bonz Study Plus 10.0%	Bonz Study Plus 68.0%	
	Sale Proceeds, Academy Building Less Cost of Sales @ Other Total Sources		6.0%	2,592,975 (155,579) 0 2,437,397	3,960,180 (237,611) 0 <b>3,722,569</b>	
Uses of Fund	s Acquisition from the Town Public Water Supply Septic Fields Soft Costs @ this % of Construction Academy Construction Costs Construction Contingency @ Misc.	: 20,536	20.0% \$112.54 10.0%	$ \begin{array}{r} 1 \\ 44,000 \\ 40,000 \\ 462,230 \\ 2,311,150 \\ 231,115 \\ 25,000 \\ 3,113,496 \\ \end{array} $	$ \begin{array}{r} 1 \\ 44,000 \\ 40,000 \\ 462,230 \\ 2,311,150 \\ 231,115 \\ \underline{25,000} \\ 3,113,496 \\ \end{array} $	
	Total Sources Total Uses <b>Developer Profit</b> Profit as % of Costs			2,437,397 (3,113,496) (676,100) -21.7%	3,722,569 (3,113,496) 609,073 19.6%	
Summary of A	Assumptions Sale Price - 1 BRs Sale Price - 2 BRs Sale Price per saleable s.f.		Academy \$153,175 \$217,250 \$192.50	,	Academy \$233,940 \$331,800 \$294.00	
Same for Both Analyses	Gross s.f. Saleable s.f. Efficiency Const. Cost Est. / gross s.f. Const. Cost Est. / saleable s.f.		20,060 13,470 67.1% \$115.21 \$171.58	,	7 7 14	1 BR Units 2 BR Units Total Total Units Total BRs

14

21

#### **Basic Information**

Lot Size in Ac	res		6.67					
Lot Size in squ	uare feet:		290,545					
Existing Buildi	ngs - Gross s.f.		35,119					
Proposed Der	nolition		(14,583)					
Environmenta	Remediation - 2015	bid	494,729					
Demo of Conr	ector Building		139,700					
Demo of other	buildings		337,200					
Total Demo ar	nd Remediation - 201	5 bids:	971,629					
					Option 1 Proposed	Gross after		
Building Analysis		Footprint	# Stories	Gross s.f.	Demolition	Demo	Academy	Nichewaug
Academy Bui	lding							
•	Footprint	10,268	2.0	20,536		20,536	20,536	
	Connector	4,861	3.0	14,583	14,583	0		
	Totals		Demonst	35,119	14,583	20,536	20,536	0
			Percent		41.5%	58.5%		
	Total Demo s.f.			14.583				
	Projected Cost 20	15 Bid @ \$/sf		\$8.28	\$120 713			
	Plus Inflation @ # v	/rs·	20	6.0%	\$7 243			
		Projected	d Demo cost to	o Town:	\$127,956			
L	ess discount for priva	ate work / no prev	vailing wages:	20.0%	(\$25,591)			
		Projected D	emo Cost for	Developer	\$102,365			
		•		•	- <b>.</b>			

#### Condominum Development & Sale Analysis

Academy Building	GSF	NSF	Eff	1 Bed	2 Bed	Total
Floor 1	10,320	6,160	60%	2	4	6
Floor 2	9,740	7,310	75%	5	3	8
Total	20,060	13,470	67%	7	7	14
Total Bedrooms				7	14	21

#### **Construction Cost Estimate**

Water Supp	ly			
	-			Share to
	Offsite Well Costs		80,000	Academy
	Contingency @	10.0%	8,000	50.0%
			88,000	44,000
Septic Field				
	Estimated Cost		80,000	40,000

			Unit	\$ per Unit		
Construction Costs			s.f.	\$ / s.f.	Amount	
Academy Bui	ilding					
	West Entrance	15' x 20' x 2	600	\$50.00	30,000	
	Elevator- two stop	os			80,000	
	Housing Unit Con	struction	13,470	\$125.00	1,683,750	
	Common Area Co	onstruction	6,590	\$60.00	395,400	
	Site and Landsca	ping			50,000	
	Parking Spaces		24	\$3,000.00	72,000	
				Subtotal		2,311,150

The follo	wing is for Ar	nalysis A				Bonz				
Academy Building	Unit 3	Bedrooms	Saleable S.F. 1 BRs	Saleable S.F. 2 BRs	Bonz Sale Price per s.f.	Price Per Unit	Price Adjustment 10.0%	Adjusted Price 1 BRs	Adjusted Price 2 BRs	Total Sales
Floor 1	A101	1	820		\$175.00	143,500	14,350	157,850		157,850
	A102	1	840		\$175.00	147,000	14,700	161,700		161,700
	A103	2		1,200	\$175.00	210,000	21,000		231,000	231,000
	A104	2		1,100	\$175.00	192,500	19,250		211,750	211,750
	A 105	2		1,100	\$175.00	192,500	19,250		211,750	211,750
	A106	2		1,100	\$175.00	192,500	19,250		211,750	211,750
Floor 2	A 201	1	820		\$175.00	143,500	14,350	157,850		157,850
	A 202	1	840		\$175.00	147,000	14,700	161,700		161,700
	A 203	2		1,200	\$175.00	210,000	21,000		231,000	231,000
	A 204	2		1,100	\$175.00	192,500	19,250		211,750	211,750
	A 205	2		1,100	\$175.00	192,500	19,250		211,750	211,750
	A 206	1	750		\$175.00	131,250	13,125	144,375		144,375
	A 207	1	750		\$175.00	131,250	13,125	144,375		144,375
	A 208	1	750		\$175.00	131,250	13,125	144,375		144,375
Totals	14	21	5,570	7,900		2,357,250	235,725	1,072,225	1,520,750	2,592,975
Number of U	Inits		7	7				153,175	217,250	
Summary of units and	sale prices # 1 BRs	Avg. Price 1 BRs	# 2 BRs	Avg. Price 2 BRs	Total Units	Total Bedrooms	Total Sale Proceeds	Saleable s.f.	Avg Price per s.f.	Avg Price per unit
Academy	7	153,175	7	217,250	14	21	2,592,975	13,470	\$192.50	
Totals	7	153,175	7	217,250	14	21	2,592,975			

# The following is for Analysis B

Academy	y Building	Unit #	Bedrooms	Saleable S.F.	Saleable S.F.	Bonz Sale Price per s.f.	Price Per 1 BR Unit	Price Adjustment	Adjusted Price 1 BRs	Adjusted Price 2 BRs	Total Sales
				1 BRs	2 BRs			68.0%			
	Floor 1	A101	1	820		\$175.00	143,500	97,580	241,080		241,080
		A102	1	840		\$175.00	147,000	99,960	246,960		246,960
		A103	2		1,200	\$175.00	210,000	142,800		352,800	352,800
		A104	2		1,100	\$175.00	192,500	130,900		323,400	323,400
		A 105	2		1,100	\$175.00	192,500	130,900		323,400	323,400
		A106	2		1,100	\$175.00	192,500	130,900		323,400	323,400
	Floor 2	A 201	1	820		\$175.00	143,500	97,580	241,080		241,080
		A 202	1	840		\$175.00	147,000	99,960	246,960		246,960
		A 203	2		1,200	\$175.00	210,000	142,800		352,800	352,800
		A 204	2		1,100	\$175.00	192,500	130,900		323,400	323,400
		A 205	2		1,100	\$175.00	192,500	130,900		323,400	323,400
		A 206	1	750		\$175.00	131,250	89,250	220,500		220,500
		A 207	1	750		\$175.00	131,250	89,250	220,500		220,500
		A 208	1	750		\$175.00	131,250	89,250	220,500		220,500
	Totals	14	21	5,570	7,900 13,470		2,357,250	1,602,930	1,637,580	2,322,600	3,960,180
	Number of Units			7	7				233,940	331,800	
Summar	ry of units and sale	prices	Avg. Price	# 0 BBa	Avg. Price	Total Unite	Total	Total Sale	Saleable s.f.	Avg Price per s.f.	
		# 1 DK5	I DKS	# 2 DKS	2 DK3		Deuroonins	FIOCEEUS			
	Academy	7	233,940	7	331,800	14	21	3,960,180	13,470	\$294.00	
	Totals	7	233,940	7	331,800	14	21	3,960,180			

## Academy, Analysis B, Summary

			Saleable	Sale Price	Sale Price
	Unit #	Bedrooms	S.F.		per s.f.
Floor 1	A101	1	820	241,080	\$294
	A102	1	840	246,960	\$294
	A103	2	1,200	352,800	\$294
	A104	2	1,100	323,400	\$294
	A 105	2	1,100	323,400	\$294
	A106	2	1,100	323,400	\$294
Floor 2	A 201	1	820	241,080	\$294
	A 202	1	840	246,960	\$294
	A 203	2	1,200	352,800	\$294
	A 204	2	1,100	323,400	\$294
	A 205	2	1,100	323,400	\$294
	A 206	1	750	220,500	\$294
	A 207	1	750	220,500	\$294
	A 208	1	750	220,500	\$294
Totals	14	21	13,470	3,960,180	
Number of Units			14	14	

Nichewaug Inn

-	F	Pro Forma		Analysis A	Analysis B	
Sources of Fu	inds		Sale Prices at	Bonz Study Plus 10.0%	Bonz Study Plus 120.0%	
	Sale Proceeds, Nichewaug @ \$ / s.f Less Cost of Sales @ Total Sources		6.0%	1,788,325 (107,300) <b>1,681,026</b>	3,576,650 (214,599) <b>3,362,051</b>	
Uses of Fund	S					
	Acquisition from the Town Private Water Supply Septic Fields Soft Costs @ this % of Construction Nichewaug Const. Costs Construction Contingency @ Misc. Total Sources Total Uses <b>Developer Profit</b> Profit as % of Costs	: 14,680	20.0% \$144.43 10.0%	1 16,500 25,000 424,055 2,120,273 212,027 25,000 2,822,855 1,681,026 (2,822,855) (1,141,830) -40.4%	1 16,500 25,000 424,055 2,120,273 212,027 25,000 2,822,855 3,362,051 (2,822,855) 539,196 19.1%	
Summary of A	Assumptions			Nichewaug	М	Nichewaug
	Sale Price - 1 BRs Sale Price - 2 BRs Sale Price per saleable s.f.			\$171,004 \$254,100 \$192.50		\$342,008 \$508,200 \$385.00
Same for Both Analyses	Gross s.f. Saleable s.f. Efficiency Const. Cost Est. / gross s.f. Const. Cost Est. / saleable s.f.			14,680 9,290 63.3% \$144.43 \$228,23		6 1 BR Units 3 2 BR Units 9 Total Total Units Total BRs

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	Nichewaug Inn Sale Prices	# Units	# BRs
Bonz plus	10.0%		
One BR Units	\$171,004	6	6
Two BR Units	\$254,100	3	6
Price per s.f.	\$193	9	12
	S	Size of Units	

Bonz plus	120.0%	
One BR Units	342,008	888
Two BR Units	508,200	1,320
Price per s.f.	\$385	

Private water supply - 12 Bedrooms

Sources of Funds		Analysis A Analysis B					
	Bonz +	10.0%	120.0%				
Nichewaug Sales		1,788,325	3,576,650				
Cost of Sales @	6.0%	(107,300)	(214,599)				
Total Sources		1,681,026	3,362,051				
Uses of Funds							
Acquisition		1	1				
Water & Septic		41,500	41,500				
Soft Costs		424,055	424,055				
Nichewaug Const.	\$144	2,120,273	2,120,273				
Const. Conting.	10.0%	212,027	212,027				
Misc.		25,000	25,000				
		2,822,855	2,822,855				
Total Sources		1,681,026	3,362,051				
Total Uses		(2,822,855)	(2,822,855)				
Developer Profit		(1,141,830)	539,196				
Profit as % of Costs		-40.4%	19.1%				

#### **Basic Information**

Lot Size in Acres	6.67	
Lot Size in square feet:	290,545	
Existing Buildings - Gross s.f.	68,366	
Proposed Demolition	(53,686)	
Environmental Remediation - 2015 bid	494,729	
Demo of Connector Building - 2015 bid	139,700	
Demo of other buildings - 2015 Bid	337,200	
Total Demo and Remediation - 2015 bids:	971,629	
Demo Cost Per s.f.	Total	Connector
Gross s.f.	68,366	14,583
Total Demo Cost	476,900	139,700
Demo Cost per gross s.f.	\$6.98	\$9.58
Average Cost:	\$8.28	

					Proposed	Gross after			
Building Analysis			# Stories	Gross s.f.	Demolition	Demo	Academy	Nichewaug	
Academy Bui	ilding								
	Footprint	10,268	2.0	20,536	20,536	0	0		
	Connector	4,861	3.0	14,583	14,583	0			
Nichewaug Ir	ın								
-	Dining Wing	2,936	3.0	8,808	8,808	0		0	
	Kitchen Wing	2,353	3.0	7,059	7,059	0		0	
	Music Room	2,306	1.0	2,306		2,306		2,306	
	Main Building	5,198	2.9	15,074	2,700	12,374		12,374	
				68,366	53,686	14,680	0	14,680	
			Percent		78.5%	21.5%			
	South Addition	Footprint	# Stories	s.f.					
		900	3.0	2,700	(Mother Superi	ior Wing)			
	Price per s.f.			\$8.28			Town Demo (	Cost	\$471,058
	Total Demo s.f.			53,686			Private Disco	unt %	20.0%
	Projected Cost, 201	I5 Bid @ \$ / s.f.		\$8.28	\$444,394		Potential savi	ngs	(94,212)
	Plus Inflation @ # y	rs:	2.0	6.0%	\$26,664		Developer Co	st	376,846
		Projected	l Demo Cost f	or Town	\$471,058		-		

#### Condominum Development & Sale Analysis

Nichewaug In	n	GSF	NSF	Eff	1 Bed	2 Bed	Total	
	Floor 1	6,431	2,450	38%	2	1	3	Dormer
	Floor 2	4,125	3,600	87%	2	1	3	Loss Factor
	Floor 3	3,712	3,240	87%	2	1	3	90.0%
	Total	14,268	9,290	65%	6	3	9	
	Total Bedrooms	,	,		6	6	12	
Construction Cost	Estimate							
Water Supply	1							
	Well Renovation / Upg	rades		15,000				
	Contingency @		10.0%	1,500				
Sontic Field				16,500				
Septier leid	Estimated Cost			25,000				
Construction Costs			Unit s.f.	\$ per Unit \$ / s.f.	Amount			
Nichewaug Ir	าท			<i>•••••••••••••</i>				
-	Elevator				125,000			
	Housing Unit Construct	tion	9,290	\$150.00	1,393,500			
	Music Room Construct	ion	2,306	\$100.00	230,600			
	Common Area Constru	iction	2,672	\$100.00	267,173			
	Site and Landscaping				50,000			
	Parking Spaces @	2	18	\$3,000.00	54,000			
				Subtotal		2,120,273		
			•	Total Construct	ion	2,120,273		

# The following is for Analysis A

					Bonz			Adjusted	Adjusted	Total
hewaug Inn			Saleable	Saleable	Sale Price	Price	Price	Price	Price	Sales
-	Unit #	Bedrooms	S.F.	S.F.	per s.f.	per unit	Adjustment 10.0%	1 BRs	2 BRs	
Floor 1	N 101	1	800		\$175.00	140,000	14,000	154,000		154,000
	N 102	1	900		\$175.00	157,500	15,750	173,250		173,250
	N 103	1	750		\$175.00	131,250	13,125	144,375		144,375
	N 104				\$175.00	-	-		-	-
	N 105				\$175.00	-	-			
Floor 2	N 201	2		1,400	\$175.00	245,000	24,500		269,500	269,500
	N 202	1	900		\$175.00	157,500	15,750	173,250		173,250
	N 203	2		1,300	\$175.00	227,500	22,750		250,250	250,250
	N 204				\$175.00	-	-		-	-
	N 205				\$175.00	-	-		-	-
Floor 3	N 301	2		1,260	\$175.00	220,500	22,050		242,550	242,550
Dormer factor	N 302	1	810		\$175.00	141,750	14,175	155,925		155,925
90.0%	N 303	1	1,170		\$175.00	204,750	20,475	225,225		225,225
	N 304				\$175.00	-	-		-	-
	N 305				\$175.00	-	-		-	-
Total	9	12	5,330	3,960		1,625,750	162,575	1,026,025	762,300	1,788,325
			6	3						

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Summary of units and sale	prices	Avg. Price		Avg. Price		Total	Total Sale	Saleable s.f.	Avg Price per s.f.
	# 1 BRs	1 BRs	# 2 BRs	2 BRs	Total Units	Bedrooms	Proceeds		
Nichewaug Inn	6	171,004	3	254,100	9	12	1,788,325	9,290	\$192.50
Totals	6	171,004	3	254,100	9	12	1,788,325		

# The following is for Analysis B

						Bonz			Adjusted	Adjusted	Total
Nichewaug Inr	า			Saleable	Saleable	Sale Price	Price	Price	Price	Price	Sales
		Unit	Bedrooms	S.F.	S.F.	per s.f.	per unit	Adjustment 120.0%	1 BRs	2 BRs	
Floor 1		N 101	1	800		\$175.00	140,000	168,000	308,000		308,000
		N 102	1	900		\$175.00	157,500	189,000	346,500		346,500
		N 103	1	750		\$175.00	131,250	157,500	288,750		288,750
		N 104				\$175.00	-	-	-		-
		N 105				\$175.00	-	-	-		-
Floor 2		N 201	2		1,400	\$175.00	245,000	294,000		539,000	539,000
		N 202	1	900		\$175.00	157,500	189,000	346,500		346,500
		N 203	2		1,300	\$175.00	227,500	273,000		500,500	500,500
		N 204				\$175.00	-	-		-	-
		N 205				\$175.00	-	-		-	-
Floor 3		N 301	2		1,260	\$175.00	220,500	264,600		485,100	485,100
		N 302	1	810		\$175.00	141,750	170,100	311,850		311,850
Dormer	factor	N 303	1	1,170		\$175.00	204,750	245,700	450,450		450,450
90.0	)%	N 304		,		\$175.00	-	-		-	-
		N 305				\$175.00	-	-		-	-
Total		9	12	5,330	3,960		1,625,750	1,950,900	2,052,050	1,524,600	3,576,650
			Avg. Size	6 888	3 1,320						
Summary of units	and sale	prices # 1 BRs	Avg. Price 1 BRs	# 2 BRs	Avg. Price 2 BRs	Total Units	Total Bedrooms	Total Sale Proceeds	Saleable s.f.	Avg Price per s.f.	Avg. Price per unit
Nichewa	ug Inn	6	342,008	3	508,2 <u>00</u>	9	12	3,576,650	9,290	\$385.00	397,406
Totals		6	342,008	3	508,200	9	12	3,576,650			
									Avg. Size pe	r unit	1,032

Nichewaug, Analysis B, Summary										
			Saleable	Sale Price	Sale Price					
	Unit #	Bedrooms	S.F.		per s.f.					
Floor 1	N 101	1	800	308,000	\$385					
	N 102	1	900	346,500	\$385					
	N 103	1	750	288,750	\$385					
	N 104	1	-	-						
	N 105	2	0	-						
Floor 2	N 201	2	1,400	539,000	\$385					
	N 202	1	900	346,500	\$385					
	N 203	2	1,300	500,500	\$385					
	N 204	1	-	-						
	N 205	2	0	-						
Floor 3	N 301	2	1,260	485,100	\$385					
	N 302	1	810	311,850	\$385					
Dormer factor	N 303	2	1,170	450,450	\$385					
90.0%	N 304	1	-	-						
	N 305	2	0	-						
Total	14	22	9,290	3,576,650						

## Nichowaya Analysis P. Summary

Nichewaug Inn - Single Family

	Pro Forma		Analysis A	Analysis B	Total Homes	
Sources of Funds		Sale Prices at	Bonz Study Plus 10.0%	Bonz Study Plus 17.0%	3	4
Sale Proceeds @ \$ / s.f. of: Less Cost of Sales @ Total Sources	5	\$192.50 6.0%	365,750 (21,945) <b>343,805</b>	\$204.75 389,025 (23,342) 365,684	1,167,075 1,55 (70,025) (9 <b>1,097,051 1,46</b>	6,100 3,366) 2,734
Uses of Funds Acquisition from the Town Private Water Supply Septic Fields Soft Costs @ this % of Construction Home Const Cost Garage Cost Construction Contingency @ Misc. Total Sources Total Uses Developer Profit Profit as % of Construction	on: 1,500 400 400	15.0% \$132.42 \$45.00 10.0%	1 4,125 6,250 29,795 198,635 18,000 21,663 25,000 303,469 343,805 (303,469) 40,336 12,2%	1 4,125 6,250 29,795 198,635 18,000 21,663 25,000 303,469 365,684 (303,469) 62,214 20,5%	3 12,375 1 18,750 2 89,386 11 595,904 79 54,000 7 64,990 8 75,000 10 910,408 1,21 1,097,051 1,46 (910,408) (1,21 186,643 24	4 6,500 9,181 9,181 94,538 72,000 36,654 90,000 3,877 3,877 3,877 82,734 3,877

Size of home	1,500	
Size of garage	400	
Total s.f.	1,900	
Construction Cost	238,298	(including contingency)
Construction Cost per s.f.	\$125.42	

#### Revenues

Bonz Market Study - sale price per s.f.		\$175.00				
			Bonz plus	Bonz plus		
Sale Price Estimates			10.0%	17.0%		
	Total s.f.		\$192.50	\$204.75		
House	1,500					
Garage	400					
	1,900		365,750	389,025		

Sources of Funds		Analysis A	Analysis B	
	Bonz +	10.0%	17.0%	
Sale Proceeds		365,750	389,025	
Less Cost of Sales	<u>a</u>	(21,945)	(23,342)	
	Total Sources	343,805	365,684	
Uses of Funds				
Acquisition from the	Town	1	1	
Water & Septic		10,375	10,375	
Soft Costs		29,795	29,795	
Const. Cost		238,298	238,298	
Misc.		25,000	25,000	
	Total Uses	303,469	303,469	
Total Sources		343,805	365,684	
Total Uses		(303,469)	(303,469)	
Developer Profit		40,336	62,214	
Profit as % of Costs		13.3%	20.5%	

	Size	Constr. Cost	\$ / s.f.
Home	1,500	218,498	\$145.67
Garage	400	19,800	\$49.50
Total	1,900	238,298	
			\$125.42
Sales Price		365,750	\$243.83

#### **Construction Cost Estimate**

Water Supply	,				
	Existing Well - Refurbish		15,000	Number of Homes	4
	Contingency @	10.0%	1,500	BRs per home	3
		_	16,500	Total BRs	12 (private well)
	Well Cost per home	4	4,125		
Septic Field	Estimated Cost		25,000		
			25,000		
	Septic Cost per home	4	6,250		

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#### **Construction Cost Estimates**

Size of Home:	1,500			
	Pe	)r	Per House	
	Sq. I	Foot		
Foundation				
Footings and foundation labor	3.3	38	5,071	
Footings & foundation material	1.8	37	2,805	
Waterproofing, etc.	0.2	22	324	
Floors labor and material	2.1	16	3,236	
Foundation Total		7.62		11,436
Structure				
Labor for framing	7.9	<u>)</u> 1	11,867	
Trusses	3.6	30	5,394	
Panels and loose lumber	17.	98	26,971	
Windows and Ex doors	4.0	)3	6,041	
Siding - vinyl shakes	6.4	47	9,709	
Roofing	3.6	50	5,394	
Insulation - to code.	2.3	30	3,452	
Balconies and porches	3.6	30	5,394	
Total - Structure		49.48		74,224
HVAC, Plumbing, Electric				
HVAC	8.6	33	12,946	
Plumbing	10.	79	16,182	
Electric	5.6	51	8,415	
Fire Protections	3.8	38	5,826	
Total HVAC, etc.		28.91		43,369
Drywall	9.3	35	14,025	
		9.35		14,025
Interior Finishes	_			
Materials	5.2	18	7,768	
Labor	4.3	32	6,473	
Painting	3.8	38	5,826	
Cabinets, vanities, granite counters	7.2	19	10,788	~~~~~
Total interior Finish		20.57		30,855
Flooring				
	3.1	16	4,747	
Hardwood	3.7	(4	5,610	
	1.7	(3	2,589	40.040
I OTAI FIOORING		8.63		12,946

			Per Sq. Foot		Pe	r House	
Misc.							
Appliances			1.55			2,330	
Mirrors, shelving,	towel bars, TP.		0.86			1,295	
					2.42		3,625
Site Improveme	nts						
Driveways			0.86			1,295	
Sidewalks			0.43			647	
Site Work			0.86			1,295	
Punch Work			0.69			1,036	
Landscape			2.59			3,884	
Total - Site					5.44		8,156
						=	
				\$	132.42		198,635
Garage	s.f. of:	400	45.00			18,000	
						_	18,000
Home size:	1,500						216,635
Garage size	400			Squa	re feet		1,900
Total s.f.	1,900			Cost	per s.f.		\$114.02

## **Townhouse Development**

	I	Pro Forma		Analysis A		Analysis B		
Sources of Fur	ds		Sale Prices at	Bonz Study Plus 10.0%		Bonz Study Plus 18.0%		
							Total Hon	nes
							15	20
;	Sale Proceeds @ price per s.f. of:		\$192.50	269,500	\$206.50	289,100	4,336,500	5,782,000
I	Less Cost of Sales @		6.0%	(16,170)		(17,346)	(260,190)	(346,920)
	Total Sources			253,330		271,754	4,076,325	5,435,100
Uses of Funds								
	Acquisition from the Town			1		1	15	20
I	Private Water Supply			5,867		5,867	88,000	117,333
:	Septic Fields			5,333		5,333	80,000	106,667
:	Soft Costs @ this % of Constructior	n:	15.0%	22,897		22,897	343,455	457,940
I	Home Const Cost	1,200	\$127.21	152,647		152,647	2,289,698	3,052,930
(	Garage Cost	200	\$45.00	9,000		9,000	135,000	180,000
(	Construction Contingency @		10.0%	16,165		16,165	242,470	323,293
I	Misc.			19,000		19,000	285,000	380,000
				230,909		230,909	3,463,637	4,618,183
-	Total Sources			253,330		271,754	4,076,310	5,435,100
-	Fotal Uses			(230,909)		(230,909)	(3,463,637)	(4,618,183)
	Developer Profit			22,421		40,845	612,673	816,917
I	Profit as % of Costs			9.7%		17.7%	15.0%	15.0%

Size of unit	1,200	
Garage	200	(one car)
	1,400	
Construction Cost	168,811	
Cost per s.f.	\$120.58	

#### Revenues

Bonz Market Study - sale price per s.f.		\$175.00		
Sale Price Estimates			Bonz plus 10.0%	Bonz plus 18.0%
	Total s.f.		\$192.50	\$206.50
House	1,200			
Garage	200			
	1,400		269,500	289,100

Sources of Funds	Analysis A	Analysis B	
Bonz +	10.0%	18.0%	
Sale Proceeds	269.500	289,100	
Less Cost of Sales @	(16,170)	(17.346)	
Total Sources	253,330	271,754	
Uses of Funds			
Acquisition from the Town	1	1	
Water & Septic	11,200	11,200	
Soft Costs	22,897	22,897	
Const. Cost	177,811	177,811	
Misc.	19,000	19,000	
Total Uses	230,909	230,909	
Total Sources	253.330	271.754	
Total Uses	(230,909)	(230,909)	
Developer Profit	22,421	40,845	
Profit as % of Costs	9.7%	17.7%	

	Size	Cost	\$ / s.f.
Home	1,200	167,911	\$139.93
Garage	200	9,000	\$45.00
Total	1,400	176,911	
			\$126.37
Sales Price		269,500	\$224.58

#### **Construction Cost Estimate**

Water Supply	, Off Site Well Contingency @	10.0%	80,000 8,000	Number of Homes BRs per home	15 2 30 (required off cite well)
	Well Cost per home	15	5,867	TOTAL DAS	So (requires on-site weil)
Septic Field	Estimated Cost Septic Cost per home	15	80,000 5,333		

	Construction	nates				
Size of Home:	1,200	_				
	Per Sa Foot	Pe	r House			
Foundation	54.100					
Footings and foundation labor	3.25		3.897			
Footings & foundation material	1.80		2,156			
Waterproofing, etc.	0.21		249			
Floors labor and material	2.07		2.487			
Foundation Total		7.32	_,	8,788		
_						
Structure						
Labor for framing	7.60		9,120			
Trusses	3.45		4,145			
Panels and loose lumber	17.27		20,726			
Windows and Ex doors	3.87		4,643			
Siding - vinyl shakes	6.22		7,462			
Roofing	3.45		4,145			
Insulation - to code.	2.21		2,653			
Balconies and porches	3.45		4,145			
Total - Structure		47.53		57,039		
				Total - Structure		
HVAC, Plumbing, Electric						
HVAC	8.29		9,949			
Plumbing	10.36		12,436			
Electric	5.39		6,467			
Fire Protections	3.73		4,477			
Total HVAC, etc.		27.77		33,328		
Drywall	8.98		10,778			
		8.98		10,778		
Interior Finishes						
Matarials	1 07		5 060			
Indendo Labor	4.JI 1 15		1 074			
Lavu	4.10		4,974			
rainully	3.73		4,477			
Cabinets, vanities, granite counters	6.91	40.70	8,291	00.714		
I OTAL INTERIOR FINISN		19.76		23,711		
Flooring						
Tile, ceramic	3.04		3,648			
Hardwood	3.59		4,311			
Carpet	1.66		1,990			
Total Flooring		8.29	,	9,949		
0				•		
		Per Sq. Foot		Р	er House	
------------------------------------	---------	-----------------	------	-----------------	----------	----------
Misc.		•				
Appliances		1.49			1,791	
Mirrors, shelving, towel bars, TP.		0.83			995	
				2.32		2,786
Site Improvements						
Driveways		0.83			995	
Sidewalks		0.41			497	
Site Work		0.83			995	
Punch Work		0.66			796	
Landscape		2.49			2,985	
Total - Site				5.22		6,268
			\$	127.21	=	152,647
Garage	s.f. of	200.00		\$45.00		
	0	200100		<b>\$</b> .0.00		9.000
Home size: 1 200					=	161 647
Garage size 200			Saua	re feet		1.400
Total s.f. 1,400			Cost	per s.f.		\$115.46

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**Rental Operations** 

#### Nichewaug Inn - Rental Operations

#### Sources of Funds

Conventional Debt Federal Historic Tax Credit State Historic Tax Credit Mass Housing Workforce Hsng Subordinated. Loan Developer Equity Deferred Developer Fee (net of dev. fee paid) <b>Total</b>	30.8% 16.8% 15.0% 22.8% 6.2% 8.4% 100.0%	1,489,000 809,000 724,000 1,100,000 300,000 407,000 <b>4,829,000</b>	No. Units 11	\$ / Unit 100,000
Uses of Funds			Certified Rehab Costs	Percent of Item
Acquisition - cash at closing	0.0%	1	0	0.0%
Soft Costs	14.7%	708,000	530,000	74.9%
Water and Septic	1.7%	84,000	0	0.0%
Construction Costs - Buildings & Site	64.5%	3,112,657	2,888,657	92.8%
Const. Contingency @ 8.0%	5.2%	249,013	231,093	92.8%
Development Fee @ 18.0%	13.6%	657,000	609,719	92.8%
Miscellaneous (delta of Sources and Uses)	0.4%	18,329	0	92.8%
Total	100.0%	4,829,000	4,259,469	

Paid Development Fee	250,000					
				% available	Price	Amount
Eligible Rehabilitation Costs			4,259,469			
Max Fed. and State Historic Credits	each	20.0%	851,894			
Projected Federal Credits			851,894	100.0%	\$0.95	809,299
Projected State Credits @		100.0%	851,894	100.0%	\$0.85	724,110
						1,533,409
Total Eligibility for SHTCs			851,894			
Total Developer Equity			300,000			
First Year Cash Flow			27,872			
First Year Return			9.3%	)		

#### FEASIBILITY ISSUES WITH THIS OPTION / APPROACH

1. The Mass Housing Program is new, and the funding may not be available / feasible;

2. The Federal & State Historic Tax Credits are likely to require retaining much of the internal layout and organization of the Nichewaug Inn, compromising marketability;

3. It can take two to four years to obtain the full allocation of State Historic Tax Credits.

#### PowerPoint Presentation Sources of Funds

Conventional Debt	1,489,000
Federal Historic Credit	809,000
State Historic Credit	724,000
Mass Housing Program	1,100,000
Developer Equity	300,000
Deferred Developer Fee	407,000
Total	4,829,000

### **Uses of Funds**

	R	ehab Costs
Acquisition	1	0
Soft Costs	708,000	530,000
Construction Costs	3,112,657	2,888,657
Const. Contingency	249,013	231,093
Development Fee	657,000	609,719
Miscellaneous	18,329	0
Total	4,745,000	4,259,469

Rent Summary			Avg s.f.		
	Ture e	No.	Leasable	Rent	Rent
	туре	Units	per unit	per unit	per s.r.
Inn	1 BR	8	846	\$1,185	\$1.40
Inn	2 BR	7	1,230	\$1,661	\$1.35

Nichewaug	ichewaug Inn			Avg s.f. Rentable					
<b>Revenue Su</b>	mmary		Number of	Leasable	Total	Rent	Rent	Monthly	Annual
	Type of Unit	No. Units	Apartments	per unit	s.f.	per s.f.	per unit	Rent	Rent
Inn	1 BR		8	846	6,770	\$1.45	\$1,227	9,817	117,798
Inn	2 BR		7	1,230	8,610	\$1.35	\$1,661	11,624	139,482
		0	15	-	15,380			21,440	257,280
				1,025		\$1.39	\$1,429		
				Resident	ial Revenues		257,280		
				Resid	l. Vacancy @	5.0%	(12,864)		
					Annual Collec	tions	244,416		

#### **Construction Cost Estimate**

Water Supply

Well Drilling		40,000
Contingency @	10.0%	4,000
		44,000
Septic Field		
Estimated Cost		40,000
Exclusions per unit for Appliances and Cal	6,000	

		Unit	\$ per Unit			Exclusions
Construction Costs		s.f.	\$ / s.f.	Amount	f	from QRE
Nichewaug I	<b>nn</b> 15					
	Elevator			125,000		
	Housing Unit Construction	15,380	\$140.00	2,153,200		90,000
	Music Room Construction	2,306	\$115.00	265,190		
	Common Area Construction	4,836	\$90.00	435,267		
	Site and Landscaping			50,000		50,000
	Parking 28		\$3,000.00	84,000		84,000
		22,522	Subtotal		3,112,657	
			Total Constru	uction	3,112,657	224,000
						7.2%
	Cost per s.f.	Gross		Cost		
		Bldg. Area	Cost	per s.f.		
	Inn	22,522	3,112,657	\$138.20		
		22,522	3,112,657			
				\$138.20		

							QRE % of Maximum	QRE Amount
Estimate of Soft Costs		Totals				Maximum is:	92.8%	
A & E. @ % of Const. Budget:	6.0%	186,759	mos	% out	Interest Rate	Amt	100.0%	173,319
Interest during Construction		41,692	14	60.0%	4.0%	1,489,000	100.0%	38,692
Interest on Bridge Loans for FHT	60.0%	33,991	14	100.0%	6.0%	485,579	100.0%	31,544
Interest on Bridge Loans for SHT	75.0%	38,016	14	100.0%	6.0%	543,082	100.0%	35,280
Closing Costs		75,000					50.0%	34,801
Tax Credit Sale / Transaction		25,000					50.0%	11,600
Legal and other Fees		75,000					50.0%	34,801
Lender Legal		25,000					50.0%	11,600
Deal Structure / Tax Advice		25,000					50.0%	11,600
Other		10,000					100.0%	9,280
Appraisal		8,500					0.0%	0
Environmental, including Report		2,500					100.0%	2,320
Survey		5,000					0.0%	0
Closing Costs - Out of Pocket - Title	e / Recordir	10,000					0.0%	0
Accounting/Cost Certification		10,000					100.0%	9,280
Taxes During Construction		15,000					100.0%	13,921
Insurance During Construction		10,000					100.0%	9,280
Pre-construction carrying costs		0					100.0%	0
Operating Costs During Construction	on	0					100.0%	0
Year 1 Operating Deficit		15,000					100.0%	13,921
Building Permit @	0.60%	18,676					100.0%	17,332
Dev., Hist. Preservation and Misc.	Consulting	30,000					100.0%	27,841
Accounting During Construction		8,000					100.0%	7,424
Historic tax credit recapture insurar	nce	10,000					100.0%	9,280
Inspecting Engineer		5,000					100.0%	4,640
Miscellaneous		3,400					100.0%	3,155
Soft Cost Contingency @	5.0%	20,985					100.0%	19,475
Total		708,000						530,000
Estimated Costs Eligible for Rehab	ilitation Tax C	redit Base	74.9%	,				
Amount for Tax Credit Base			530,000					

Soft Costs Excluding Interest and A & E

407,542

## Estimated Operating Costs

		Per Unit Per Year	Total Budget	
	Number of apartments	i el i edi	15	
Utilities			-	
	Common Area Electric	234	3,515	
	Electricity - Vacant	13	194	
	Water/Sewer	721	10,817	
	Gas Heat & Hot Water	262	3,927	
	Subtotal:	1,23	30	18,453
Repairs and M	ainteance			
	Air Conditioning	22	336	
	Heating	51	758	
	Plumbing	19	285	
	Roofing	15	220	
	Electric	15	219	
	R & M Sprinklers	28	420	
	Fire Alarm/Exsting. Inspesct.	38	563	
	Carpet/Flooring	30	450	
	R & M Building Supplies	63	938	
	Keys, Locks & Doors	15	228	
	Trash Compactor	0	0	
	Appliances	28	423	
	Common Areas	25	375	
	Misc. R & M	50	750	
	Apt. Turnover - Repairs	50	750	
	Subtotal:	44	48	6,714

		Per Unit Per Year		Total Budget 15	
Contract Services					
Cleaning - Apt. Turnover		94		1,404	
Janitor - Contract		116		1,743	
Trash/Recycling Maint.		50		750	
Window Cleaning		37		550	
Painting - Apt. Turnover		224		3,360	
Trash Removal		139		2,087	
Elevator Contract		160		2,400	
Grounds Contract		150		2,249	
Snow Removal Contract		471		7,070	
Bldg. Maint. Payroll		350		5,250	
Carpet Cleaning		38		563	
HVAC Contract Maint.		32		480	
	Subtotal:		1,860		27,904
Insurance, Mgmt. Fee, Taxes					
Mgmt. Fee @	5.00%	815		12,221	
Real Estate Taxes		1,429		21,440	
Personal Property Taxes		27		398	
Property Insurance		712		10,676	
	Subtotal:		2,982		44,734
General and Administrative					
Manager/Leasing Payroll		250		3,750	
Legal and Professional		15		221	
Audit / tax return		236		3,544	
Office		25		375	
Bad Debt		250		3,750	
Misc. Admin.		15		224	
	Subtotal:		791		11,863
	Total Expense	s	7,311	—	109,669
Replacement Reserve @ S	\$ / unit	300	300		4,500
Expenses plus Replacen	nent Reserve		7,611		114,169

Summary of Operating Costs		Per Unit		Total 15
Utilities.		1,230		18,453
Repairs and Maintenance		448		6,714
Contract Services		1,860		27,904
Insurance, Mgmt Fee, Taxes		2,982		44,734
General and Admin		791		11,863
Replacement Reserves		300		4,500
·	Totals	7,611		114,169
Operating Costs @ \$ per unit	6.182	ר 92.729	114.169	
Residential Property Taxes @ \$ / unit of:	1,429	21,440 J	,	
Total Operating Costs		114,169		
Operating Costs / s.f.	15,380	\$7.42	(on leasable s.f.)	

7,611

15

Operating Costs / unit

78

#### Debt Service and Cash Flow

#### Net Operating Income

Term - years

Debt Service

Debt Service Constant

Principal Payment

Payment to FHTC @

Interest Payment, year 1

Cash Flow after Debt Service

Amount of Cash Equity Investment

Annual Collection	ns	-	244,416
Annual Operating	g Expenses		(114,169)
Net Operating In-	come		130,247
	Value @ Cap Rate of:	7.0%	1,860,675
	Max Loan @ LTV of:	80.0%	1,488,540
Conventional Lo	ban		
Amount of Loan Interest Rate Debt Service Cov	verage:	4.00% 1.381	1,488,540

25

1.0%

94,285

6.334%

59,542

34,743

8,090

27,872

300,000

### Six Year Operating Projection:

Revenues increase	0.0%	2.0%	2.0%	2.0%	2.0%	2.0%
	0.078	2.070	2.0%	2.0%	2.070	2.076
Years	1	2	3	4	5	6
Revenues	244,416	249,304	254,290	259,376	264,564	269,855
Expenses	(114,169)	(116,452)	(118,781)	(121,157)	(123,580)	(126,052)
Net Op. Income	130,247	132,852	135,509	138,219	140,984	143,803
Interest Payments	(59,542)	(58,152)	(56,707)	(55,203)	(53,640)	(52,014)
Payment to FHTC	(8,090)	(8,090)	(8,090)	(8,090)	(8,090)	0
Principal Payment	(34,743)	(36,133)	(37,578)	(39,081)	(40,645)	(42,270)
Cash Flow	27,872	30,477	33,134	35,845	38,609	49,519
Loan Balance	1,453,797	1,417,664	1,380,085	1,341,004	1,300,360	1,258,089

	Chart Data	
Net Gain to Town over 20 years		
Analysis A	Analysis B	
(1,578,206)	(1,578,206)	Demo Only
496,545	2,028,702	Option 1
(522,985)	493,054	Option 2
(1,024,300)	(322,850)	Option 3
(1,619,958)	(1,584,813)	Option 4
(393,818)	(282,834)	Option 5
(823,296)	(823,296)	Option 6

#### Net Gain To Town



Nichewaug Inn – Market and Feasibility Analysis October 31, 2016

## Tab / Section

#4

## **Market Analysis**

## **Residential Market Study**

## Nichewaug Inn Petersham, Massachusetts

**Prepared for:** 

Concord Square Development

**Date of Report:** 

October 11, 2016

BONZ AND COMPANY, INC. Real Estate Advisors

## BONZ AND COMPANY, INC.

Real Estate Advisors

October 11, 2016

Mr. Ted Carmen Concord Square Planning & Development, Inc. 294 Washington Street, Suite 454 Boston, MA 02108

> RE: Market Study- Preliminary Findings Nichewaug Inn Petersham, MA

Dear Mr. Carmen:

In accordance with your request, we respectfully submit our market assessment in relation to the above referenced property.

The Nichewaug Inn is located in Petersham, Massachusetts, on the northwest corner of the historic town common. The property was originally constructed in 1899 with an addition in 1952. The Town of Petersham requested proposals related to the preservation, redevelopment and reuse of the property and selected Concord Square Planning & Development as the consultant to assist in formulating potential financially feasible options for the site.

Based on work completed to date, Concord Square Planning & Development have proposed a variety of residential options on the site, including the renovation of the inn to provide one and two-bedroom condominium units and/or the demolition of a portion of the property to allow for the new construction of single-family homes.

You have requested that I provide a summary housing market overview for Petersham, an estimate of the potential sales price for both the single family homes and condominium units, and the potential absorption rate for these types of homes. Based on all of the data reviewed, it is my opinion that the proposed condominium and single family home units could sell for between \$165 and \$175 per square foot. The indicated sales price for each unit type is shown in the following table.

Unit Type	Size	Price/SF Range		Potential Sales Pirce		
1 BR Condo	700	\$165	\$175	\$115,500	\$122,500	
1 BR Condo	900	\$165	\$175	\$148,500	\$157,500	
2 Br Condo	1,000	\$165	\$175	\$165,000	\$175,000	
2 Br Condo	1,400	\$165	\$175	\$231,000	\$245,000	
3 BR SFH	1,600	\$165	\$175	\$264,000	\$280,000	
3-BR SFH	2,000	\$165	\$175	\$330,000	\$350,000	

### **Estimated Sales Price of Proposed Units**

You also requested my opinion regarding the potential feasibility to develop the Inn into, a) Market Rate Rental Housing, b) Retail c) Office d) Restaurant and /or d) Hotel / Hospitality uses. Given the small population of Petersham, the rural nature of the community, the distance from major area highways as well as from major employment centers it is very unlikely that any of these uses would be financially viable. Based on my knowledge of the area and on other projects I have been involved with in Western Massachusetts, it is my opinion that the achievable rental rates for any these uses would not be sufficient to cover the redevelopment costs. It may also be challenging to attract a sufficient number of interested parties.

Given the status of this project, we have used all the pertinent information that is appropriate for this analysis, which is to analyze the viability of a residential development in the subject's market given the information, plans and/or approvals in place at the time this market study was commissioned.

This report, including all analyses contained within, is based on estimates, assumptions and other information developed from our research of the market, knowledge of the industry and meetings during which the property contacts provided us with certain information. It is possible that some assumptions contained in this report may not materialize and unanticipated events and circumstances may occur. We have no responsibility to update this report for events and circumstances occurring after the date of our report. Nichewaug Inn Market Analysis

We have enjoyed the opportunity to conduct this assignment. If you should have any questions regarding this report, please do not hesitate to contact us.

Respectfully submitted,

## **Bonz and Company, Inc.**

Joanne Shelton.

Joanne F. Shelton Director MA Certified General Real Estate Appraiser, Lic. #75113

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## **SECTION I – MARKET OVERVIEW**

The report begins with a general overview of the national and local for-sale housing market and then provides a detailed examination of comparable properties in Petersham and the surrounding market area.

### National For-Sale Market

Housing market trends reflect the recent improvements in the economy. Data released on June 28, by the S&P/Case-Shiller U.S. National Home Price Index, covering all nine U.S. census divisions, recorded a 5.0% annual gain in April 2016, slightly less than the 5.1% increase in March. After years of volatility, home prices have grown at a rate of around 5% since early 2015. Strong growth in home prices along with growing demand for new homes have helped make the housing market one of the strongest sectors of the U.S. economy in recent months.

The impact on the housing market of Britain's decision to exit the European Union and the ensuing turmoil in global financial markets is likely to be mixed. On the one hand, falling yields on U.S. Treasury's are helping to push mortgage rates lower. The rates for 30-year fixed mortgages have fallen to about 3.5% recently, near their lowest levels in several years. If mortgage rates remain low, it makes monthly payments more affordable and can help push up home prices or encourage buyers who are on the sidelines to decide to purchase a home. But on the other hand, it could undercut consumer confidence and have a slight negative impact on the U.S. economy, making people hesitate to go out and make a major purchase such as a home.

## State For-Sale Market

Single-family home sales in Massachusetts rose by 20.9 percent in May 2016, according to data released by The Warren Group on June 28, 2016. There were 5,297 single-family homes sold in the Bay State, compared with 4,382 in May 2015. Year-to-date, sales were up by 28.2 percent with 19,554 homes sold in the first five months of 2016 compared with 15,258 sold during the same time last year. The median sale price of a single-family home in May was \$347,000, a \$7,000 increase from \$340,000 last year, the highest median sale price in eight months. Year-to-date prices remained flat, with a median sale price of \$325,500, up 0.2 percent from the same period in 2015.

Condominium sales for the month rose by 9.0 percent, with 2,146 condos sold compared with 1,969 sold in May of 2015. This marked the 12th consecutive month of increases in condo sales. Year-to-date, condo sales increased by 19.4 percent to 7,845 condos sold compared with 6,573 in the same timeframe last year. The median condo price increased by 4.4 percent to \$335,000, compared with \$321,000 in the same month last year. Year-to-date, condo prices were up 3.2 percent to a median sale price of \$310,000 compared with \$300,450 in the same time period last year.

## Local Residential Market

To better understand the current local residential market we examined single-family and condominium sales data since 2000 for Petersham as well as the surrounding communities of Hubbardston, New Salem, Hardwick and Phillipston.

As can be seen in the following exhibits, sale prices for all of these communities have fluctuated over the period reviewed, with sale prices generally climbing through 2006 and 2007 and then declining, as with so many communities during the real estate crisis and recession in 2008. However prices have been trending upwards over the past few years. The median sale price for a single family home in Petersham was \$232,000 in 2015, an 8.15% increase from the previous year but still significantly less than the pre-recession peak of \$372,500.

	Exhibit 1-Eocal Residential Sales I fices								
	Median Sales Price								
	Single Family								
Year	Petersham	Hubbardston	New Salem	Hardwick	Philipston				
YTD-2016	\$197,450	\$240,000	\$187,000	\$165,000	\$233,000				
2015	\$232,000	\$253,950	\$144,500	\$195,266	\$176,000				
2014	\$214,500	\$206,500	\$196,750	\$210,156	\$195,500				
2013	\$205,000	\$214,400	\$158,280	\$195,000	\$208,000				
2012	\$139,500	\$211,000	\$86,000	\$150,000	\$173,500				
2011	\$154,750	\$165,000	\$167,500	\$203,000	\$151,075				
2010	\$240,000	\$201,250	\$200,000	\$157,500	\$125,100				
2009	\$214,000	\$215,000	\$166,250	\$173,500	\$183,000				
2008	\$238,500	\$236,100	\$159,900	\$220,000	\$180,000				
2007	\$372,500	\$242,000	\$207,000	\$289,500	\$196,000				
2006	\$353,085	\$259,000	\$209,650	\$235,500	\$233,500				
2005	\$264,000	\$256,250	\$210,000	\$205,000	\$252,500				
2004	\$269,750	\$257,500	\$223,500	\$172,300	\$235,000				
2003	\$196,250	\$230,495	\$214,950	\$175,000	\$178,450				
2002	\$183,000	\$218,500	\$172,500	\$164,500	\$147,200				
2001	\$189,500	\$197,950	\$159,900	\$142,270	\$137,400				
2000	\$175,000	\$173,700	\$133,500	\$150,000	\$114,500				

#### **Exhibit 1–Local Residential Sales Prices**

Source: Warren Group

The number of sales in each community was also impacted by the housing crisis and recession. While the recession occurred in 2008, in general the housing market began retracting in 2005/2006. The data indicates that these communities have largely recovered from the recession, with increasing sales volume over the past serval years.

		Number of Sales							
	Single Family								
Year	Petersham	Hubbardston	New Salem	Hardwick	Philipston				
YTD-2016	8	13	6	7	4				
2015	21	42	14	26	24				
2014	22	44	6	19	16				
2013	10	45	8	20	17				
2012	15	35	8	17	18				
2011	12	22	6	18	17				
2010	11	30	10	10	11				
2009	15	30	6	20	16				
2008	10	25	5	11	13				
2007	8	48	7	12	21				
2006	8	59	16	22	22				
2005	17	62	13	31	28				
2004	14	71	20	29	27				
2003	16	51	6	21	25				
2002	11	62	10	16	12				
2001	9	46	17	24	25				
2000	14	58	8	23	21				
	~	-							

#### Exhibit 2 -Number of Sales

Source: Warren Group

### **Estimate of Potential Sales Price**

As noted previously, earlier this year the Town of Petersham requested proposals related to the preservation, redevelopment and reuse of the property and selected Concord Square Planning & Development as the consultant to assist in formulating potential financially feasible options for the site. Based on work completed to date Concord Square Planning & Development have proposed the following redevelopment options:

- 1. Retain portions of the Nichewaug Inn and the Academy Building; renovate with 26 condominium units (14 and 12, respectively). Demolish the newer brick connector building, the kitchen wing, the northern flat-roofed part of the dining room wing and the 'Mother Superior' addition of the Inn, and demolish the garage.
- 2. Retain only part of the Nichewaug Inn, with 14 condominium units. Demolish the balance of the site;
- 3. Retain part of the Inn, as above, demolish the balance of the buildings, and provide for the development of three homes on individual house lots on the northern access road;
- 4. Demolish all the buildings, and allow for the construction of four homes on single family lots along Common Street

Based on the information provided we have assumed the following:

- 1. The Condominium Units will be a mix of one and two-bedroom units. The one bedroom units will range in size from 700 to 900 square feet and the two bedroom units would be 1,000 to 1,400 square feet. The condominium fees are expected to be in the range of \$200 to \$250 per month.
- 2. The Single Family Homes will be have three-bedroom and one and half bathrooms, ranging in size from 1,600 to 2,000 square feet, on approximate half acre sites.

The condominiums and single family homes will have granite countertops, stainless steel appliances, fully applianced modern kitchen and bathroom, tile floors in the entries, hardwood floors in the living areas, and carpet in the bedrooms. We have also assumed a high level of energy efficiency. The residents of the condominium units will also have access to a large community area.

## Sales Price Analysis

In order to estimate a potential sales price for the proposed condominium units and single family homes, we analyzed sales data in Petersham, and the surrounding communities of Hubbardston, New Salem, Hardwick and Phillipston over the past 12 months, as well as listing prices and the supply of units that are currently on the market. For this analysis we considered only properties of relatively new construction or that have been renovated and updated and are similar to the proposed units in terms of size and finishes. We excluded properties with ten or more acres of land. Our extensive analysis of unit sale transactions was based on research as reported in *Multiple Listing Service (MLS)* and on conversations with local area brokers. A summary of the sales data reviewed is shown in the addenda. The search criteria resulted in a total of 47 sales or listings, a summary of which follows:

## <u>Petersham</u>

According to MLS there are 11 single family homes that meet our criteria and that are either currently available for sale, or have sold in the last 12 months. The seven properties that sold ranged in size from 2,200 sf to 3,694 sf, with sales prices from \$248,500 to \$500,000, or from \$112 to \$194 per square foot. All of the properties sold for between 1% and 10% less than their original asking price. The average time on market was approximately 175 days. There are three comparable single family homes currently for sale in Petersham with asking prices of \$209,900, \$279,900 and \$464,500 or between \$137 and \$164 per square foot. One property is under agreement.

## <u>Hubbardston</u>

According to MLS there are 23 single family homes that meet our criteria and that are either currently available for sale, or have sold in the last 12 months. The 13 properties that sold ranged in size from 1,265 sf to 2,494 sf, with sales prices from \$234,000 to \$323,000, or from \$119 to \$159 per square foot. All of the properties sold for at or slightly above their original asking price. The average time on market was approximately 80 days.

There are 7 properties currently on the market, including four "to be built" single family homes within the new Pinecrest subdivision development. These two and three-bedroom homes will range in size from 1,331 to 1,560 square feet and have asking prices ranging from \$211,800 to \$259,000 or from \$145 to \$182 per square foot. In terms of size, finishes, new construction etc. these properties are probably most comparable to the units proposed at the subject site.

## <u>New Salem</u>

According to MLS there are only five single family homes that meet our criteria and that are either currently available for sale, or have sold in the last 12 months. The one single family home sale was for a four-bedroom 2,289 square foot home that sold for \$325,900 or \$141 per square foot. It was on the market for 7 months and sold for 5% below asking.

There are three properties currently on the market, including a "to be built" threebedroom single family home with 1,196 square feet with an asking price of \$199,900 or \$167 per square foot. In terms of size, finishes, new construction etc. this property is most comparable to the units proposed at the subject site.

## <u>Phillipston</u>

According to MLS there are eight single family homes that meet our criteria, including five that have sold in the last 12 months, two that are currently under agreement and one that is being marketed for sale. Sale prices range from \$229,000 to \$354,000 or from \$98 to \$193 per square foot. Average marketing time was around 90 days.

## **Summary of Sale Comparables**

A summary of the sales, unit square footage, and sales per square foot of for all of the comparable properties by unit type is illustrated in the following exhibit. As shown the list/sale prices range from a low of \$76.77 per square foot to a high of \$225 per square foot, with an average of between \$138 and \$140 per square foot.

	List Price	Sales Price	Size (SF)	Price/SF
Min	\$199,900	\$229,000	1,196	\$76.77
Max	\$535,000	\$500,000	3,694	\$225.00
Median	\$269,900	\$274,950	2,126	\$138.16
Average	\$298,623	\$303,446	2,164	\$140.92

## Exhibit 3– Summary of Comparable Sales

### **Conclusion**

Based on all of the data reviewed, it is my opinion that the proposed condominium and single family home units could sell for between \$165 and \$175 per square foot. The indicated sales price for each unit type is shown in the following table.

**Exhibit 4 – Estimated Sales Price of Proposed Units** 

Unit Type	Size	Price/SF	Range	Potential Sales Pirce		
1 BR Condo	700	\$165	\$175	\$115,500	\$122,500	
1 BR Condo	900	\$165	\$175	\$148,500	\$157,500	
2 Br Condo	1,000	\$165	\$175	\$165,000	\$175,000	
2 Br Condo	1,400	\$165	\$175	\$231,000	\$245,000	
3 BR SFH	1,600	\$165	\$175	\$264,000	\$280,000	
3-BR SFH	2,000	\$165	\$175	\$330,000	\$350,000	

## **Absorption**

The subject development is located in a small rural community in Western Massachusetts, and the limited sales activity in Petersham and the surrounding area reflect this. According to the data provided by The Warren Group and MLS, over the past five years there have been approximately 10 to 20 sales of single family homes in Petersham each year. For the communities of New Salem, Hardwick and Phillipston, the number of sales ranges from 6 to 26 sales per year. Hubbardston has the highest sales volume with between 22 and 42 sales per year over the past five years.

According to MLS, of the 24 sales of single family homes in Petersham over the past 12 months, Days on Market ranged from 21 days to 306 days, with an average of 112 days, or approximately 3.5 months.

For the subject development I would assume a substantial marketing period of at least 12-24 months prior to construction completion, with the potential to pre-sell 5 to 6 units and the balance of the units selling at a rate of one every three months after completion.

## ADDENDA

## Appendix 1 – MLS Sales Data

# ADDRESS	TOWN	STATUS	LIST PRICE	SALE PRICE	SF	PRICE/SF	BR	BA
Lot 115A Cheyenne Drive	Hubbardston, MA	ACT	\$211,900		1,344	\$157.66	2	1
12 Main Street	Hubbardston, MA	ACT	\$230,000		2,996	\$76.77	4	2
Lot 7A Birches Road	Hubbardston, MA	ACT	\$242,900		1,331	\$182.49	3	1
Lot 115B Cheyenne Drive	Hubbardston, MA	ACT	\$251,900		1,728	\$145.78	2	1
Lot 40 Pitcherville Road	Hubbardston, MA	ACT	\$259,000		1,560	\$166.03	3	1
41 Cross Road	Hubbardston, MA	ACT	\$265,000		1,728	\$153.36	3	1
16 Evergreen Road	Hubbardston, MA	ACT	\$450,000		2,000	\$225.00	3	2
8 Iroquois Avenue	Hubbardston, MA	BOM	\$269,900		1,296	\$208.26	3	2
11 Rollingwoods	Hubbardston, MA	CTG	\$219,900		1,630	\$134.91	3	2
118 New Westminster Rd	Hubbardston, MA	SLD	\$234,000	\$234,000	1,265	\$184.98	3	1
8 Chippewa St	Hubbardston, MA	SLD	\$249,900	\$254,000	1,636	\$155.26	4	2
15 Navajo St.	Hubbardston, MA	SLD	\$255,000	\$260,000	1,768	\$147.06	3	1
12 Geordie Ln	Hubbardston, MA	SLD	\$259,900	\$259,900	1,728	\$150.41	3	2
19 Adams Rd	Hubbardston, MA	SLD	\$269,900	\$259,900	1,872	\$138.84	3	2
5 Mare Meadow Ln	Hubbardston, MA	SLD	\$269,900	\$269,900	2,208	\$122.24	4	2
8 Laurel Street	Hubbardston, MA	SLD	\$269,900	\$274,900	1,728	\$159.09	3	1
54 Seminole Ave	Hubbardston, MA	SLD	\$289.900	\$272,500	1.810	\$150.55	3	2
26 Ragged Hill Road	Hubbardston, MA	SLD	\$299.000	\$294.000	2.432	\$120.89	3	1
10 Mare Meadow Ln	Hubbardston, MA	SLD	\$299.900	\$298.000	2.494	\$119.49	3	2
148 Old Westminster Rd	Hubbardston, MA	SLD	\$300.000	\$300.000	2.282	\$131.46	4	2
37 Root Rd	Hubbardston, MA	SLD	\$319.000	\$317.000	2.480	\$127.82	3	2
96 Old Westminster Road	Hubbardston, MA	SLD	\$329,900	\$323.000	1.872	\$172.54	3	2
102 Barre Rd.	Hubbardston, MA	UAG	\$319.900		2.674	\$119.63	4	2
96 MT JEFFERSON ROAD	Hubbardston, MA	UAG	\$359.900		2.894	\$124.36	4	2
	,		1		y			
0 Wendell Rd	New Salem, MA	ACT	\$199,900		1,196	\$167.14	3	1
17 W Main	New Salem, MA	ACT	\$239,900		1,942	\$123.53	4	2
246 North Main Street	New Salem, MA	ACT	\$250,000		2,923	\$85.53	4	2
62 Michael Lane	New Salem, MA	PCG	\$225,000		2,052	\$109.65	4	2
10 Hunt Road	New Salem, MA	SLD	\$339,900	\$325,000	2,289	\$141.98	4	2
163 Hardwick Road	Petersham, MA	ACT	\$209,900		1,276	\$164.50	3	2
23 Barre Rd	Petersham, MA	ACT	\$279,900		1,768	\$158.31	3	2
19 S Main ST	Petersham, MA	ACT	\$464,500		3,379	\$137.47	4	3
28 Birch DR	Petersham, MA	SLD	\$248,500	\$248,500	2,200	\$112.95	3	2
2 Old Waite RD	Petersham, MA	SLD	\$325,000	\$312,000	2,323	\$134.31	3	2
25 Birch Drive	Petersham, MA	SLD	\$334,900	\$320,000	2,776	\$115.27	5	2
172 Nelson RD	Petersham, MA	SLD	\$348,900	\$329,000	2,254	\$145.96	4	3
101 East ST	Petersham, MA	SLD	\$475,000	\$468,500	3,312	\$141.46	4	2
108 South	Petersham, MA	SLD	\$524,900	\$500,000	3,694	\$135.35	5	3
26 N Main ST	Petersham, MA	SLD	\$535,000	\$480,000	2,466	\$194.65	3	3
58 Birch DR	Petersham, MA	UAG	\$312,000		2,314	\$134.83	3	2
5 Detersham Dd	Phillipston MA		\$330 000		1 763	\$102.80	3	2
110 School House Pd	Phillipston MA	SID	\$220 000	\$229,000	2 032	\$172.00 \$112.70	5	2
55 Baldwinville Dd	Phillipston MA	SLD	\$250 000	\$253,000	2,052	\$112.70 \$110.00	+ 2	2
160 State Pd	Phillipston MA	SLD	\$260 000	\$265,000	2,500	\$110.00	3	∠ 2
Q Pine Meadow Poad	Phillipston, MA	SLD	\$269,900	\$267,500	2,400 2 727	\$110.05 \$00 00	2	2
275 Petersham Pd	Phillipston MA	SLD	\$280.000 \$280.000	\$207,300	1 008	970.09 \$111 12	2	2
600 Highland Ave	Phillipston MA		\$270 000	φ <i>213</i> ,000	2,500	\$107.65	3	2
110 Ward Hill Road	Phillipston, MA	UAG	\$354 900		3 204	\$110.77	4	2
110 mara Illi Koau	i mupsion, ma	UNU	$\varphi_{JJ}$ , $\gamma_{00}$		5,207	ψ110.77	-1	4

Source: MLS

## Appendix 2 - Qualifications <u>Qualifications of Joanne Shelton</u> Director Bonz and Company, Inc.

## **Employment**

Ms. Shelton is Director and Principal of the firm and has been with Bonz and Company Inc. since 1998. Previously Ms. Shelton was employed by Plymouth Development Corporation, England, and Laganside Development Corporation in Belfast, Northern Ireland, two of the thirteen development corporations in the United Kingdom.

### **Education**

Ms. Shelton holds Bachelor of Science in Estate Management (Real Estate Studies), University of Ulster, Jordanstown, Northern Ireland and has also completed extensive appraisal courses and seminars offered by the Appraisal Institute as well as real estate financial classes at Boston area universities. Ms Shelton is a Massachusetts and Rhode Island licensed Certified General Real Estate Appraiser and is MAP Certified and HUD Approved for appraisals and market studies completed as part of the financing requirements for HUD's Multi-Family Accelerated Processing

### **Experience**

1) Housing and related development assignments: Market-rate, low, moderate, and mixed income housing ranging from town-house development to high-rise condominiums and rental apartments

2) Commercial properties: Medical office building suburban office buildings, large office parks, and downtown high-rise office buildings, retail districts, shopping centers, box retail facilities, specialty retail facilities; mixed-use developments, and related properties:
3) Industrial and related special purpose properties: R&D facilities, research laboratories, industrial parks, distribution facilities, and manufacturing facilities;
4) Special Purpose Properties Institutional facilities, theaters and schools, and other such properties;

Among the institutional, public, and private clients whom Ms. Shelton has served are: Citizens Financial Group, Bank of America, PNC Bank Corporation, Wainwright Bank, Harvard Pilgrim Health Care, Beacon Companies, Boston Properties, Boston University and Northeastern University, Massachusetts Housing Investment Corporation, The Community Builders, Rockport Mortgage, CW Capital, East Boston CDC, Cambridge Housing Authority and Rhode Island Housing Authority

## **Appraisal Certification:**

Massachusetts Certified General Real Estate Appraiser: License: #75113 Rhode Island Certified General Real Estate Appraiser: Certification No. A01373G Nichewaug Inn – Market and Feasibility Analysis October 31, 2016

## **Tab / Section**

## #5

# **Conceptual Plans**









Academy Building	GSF	NSF	Eff	1 Bed	2 Bed	Total
Floor 1	10,320	6,160	60%	2	4	6
Floor 2	10,320	7,310	71%	5	3	8
Total	20,640	13,470	65%	7	7	14
Total Bedrooms				7	14	21

Academy Building - Floor 1		
Unit	Туре	Net SF
1	1 Bed	820
2	1 Bed	840
3	2 Bed	1,200
4	2 Bed	1,100
5	2 Bed	1,100
6	2 Bed	1,100
Total		6,160

UNIT 4	UNIT	3	l
UNIT 5	LOUNGE	EXERCI	SE





## ACADEMY - FIRST FLOOR PLAN



Academy Building	GSF	NSF	Eff	1 Bed	2 Bed	Total
Floor 1	10,320	6,160	60%	2	4	6
Floor 2	10,320	7,310	71%	5	3	8
Total	20,640	13,470	65%	7	7	14
Total Bedrooms				7	14	21

Academy Building - Floor 2		
Unit	Туре	Net SF
1	1 Bed	820
2	1 Bed	840
3	2 Bed	1,200
4	2 Bed	1,100
5	2 Bed	1,100
6	1 Bed	750
7	1 Bed	750
8	1 Bed	750
Total		7,310

UNIT 4		UNIT 3	L
UNIT 5	7	UNIT 6	UN.





## ACADEMY - SECOND FLOOR PLAN



Nichewaug Inn	GSF	NSF	Eff	1 Bed	2 Bed	Tota
Floor 1	9,228	4,550	49%	4	1	5
Floor 2	6,997	5,700	81%	2	3	5
Floor 3	6,997	5,700	81%	2	3	5
Total	23,222	15,950	69%	8	7	15
Total Bedrooms				8	14	22

Nichewaug Inn - Floor 1		
Unit	Туре	Net SF
1	1 Bed	800
2	1 Bed	900
3	1 Bed	750
4	1 Bed	900
5	2 Bed	1,200
Total		4,550






Nichewaug Inn	GSF	NSF	Eff	1 Bed	2 Bed	Tota
Floor 1	9,228	4,550	49%	4	1	5
Floor 2	6,997	5,700	81%	2	3	5
Floor 3	6,997	5,700	81%	2	3	5
Total	23,222	15,950	69%	8	7	15
Total Bedrooms				8	14	22

Nichewaug Inn -Floors 2 and 3		
Unit	Туре	Net SF
1	2 Bed	1,400
2	1 Bed	900
3	2 Bed	1,300
4	1 Bed	900
5	2 Bed	1,200
Total		5,700



NICHEWAUG INN PETERSHAM, MA ARCHITECTS



INN - SECOND & THIRD FLOOR PLAN





07 SEPT 2016

Nichewaug Inn (9 Unit)	GSF	NSF	Eff	1 Bed	2 Bed	Total
Floor 1	6,690	2,450	37%	4	1	5
Floor 2	4,196	3,050	73%	2	3	5
Floor 3	4,196	3,050	73%	2	3	5
Total	15,082	8,550	57%	8	7	15
Total Bedrooms				8	14	22

Nichewaug Inn - Floor 1 (9 Unit)		
Unit	Туре	Net SF
1	1 Bed	800
2	1 Bed	900
3	1 Bed	750
Total		2,450







INN (9 UNIT) - FIRST FLOOR PLAN



Nichewaug Inn (9 Unit)	GSF	NSF	Eff	1 Bed	2 Bed	Total
Floor 1	6,690	2,450	37%	4	1	5
Floor 2	4,196	3,050	73%	2	3	5
Floor 3	4,196	3,050	73%	2	3	5
Total	15,082	8,550	57%	8	7	15
Total Bedrooms				8	14	22

Nichewaug Inn -Floors 2 and 3 (9 Unit)		
Unit	Туре	Net SF
1	2 Bed	1,400
2	1 Bed	900
3	1 Bed	750
Total		3,050







INN (9 UNIT) - SECOND & THIRD FLOOR PLAN





Nichewaug Inn – Market and Feasibility Analysis October 31, 2016

### **Tab / Section**

#6

## Water Supply & Septic

## Report on Sewer and Water Supply Nichewaug Inn Property

### Petersham, Ma May 2016

(Revised June 13 and October 12, 2016)

By Douglas MacLeay, MacLeay Engineering, Colrain, MA

For Purposes of this report I will use a project size of 30 Bedrooms total. This would result in a design flow of 3,300 Gallons Per Day and a Zone 1 radius of 178 feet and an Interim Wellhead Protection Area Radius of 473 feet.

### 1 PUBLIC WATER SUPPLY

There are several options for a water supply to serve this property. I will list and discuss each separately.

#### Existing Well on Site:

# Based on the DEP email received on June 10, 2016 the option of using the existing well is no longer an option.

While the DEP is not encouraging this option they have not completely ruled it out. The existing well supplied the existing facility at the time of it's closing as a school. The current water supply rules went into effect in the early 1990's. Had this well been in active use and registered with DEP it would continue to be grandfathered as a water supply as long as it tested satisfactory. The lack of continuous use has left its status in limbo. If the DEP were to consider allowing it's use as a Public Water supply a pump test would have to be conducted to determine both the quantity and quality of water available. Estimated cost to test \$10,000.00

If this well were to be re-activated its presence would affect the location and cost of a subsurface sewage disposal system to serve the property. There would also potentially be restrictions on activities near the well.

#### Drill and Test a New Well on South end of Property:

Based on notes from Ann Lewis's 2010 Meeting with Mass. DEP, they would consider allowing a new well to be drilled and tested with a Zone 1 contained on the property. Estimated Cost \$20,000.00. Based on the DEP email of Friday June 10, 2016 drilling and testing a new well on the property would be limited to either the equivalent of three, three bedroom homes or siting a fully compliant well if a larger development is chosen. There is some question as to the ability to site a well with the Zone 1 totally contained on the property and keep the septic system outside the Interim Wellhead Protection Area.

Locating a Public Water Supply Well in this area would limit the siting choices for a new subsurface sewage disposal system to serve the facility. The use restrictions which would be imposed would likely be a negative to the use of this area.

## Drill and Test a New Well on Trustees of Reservation Land Across Route 32:

While this option certainly has some controversy, it is clear from a survey plan recorded at the Worcester Registry of Deeds Plan Book 172 Plan 127 that as of December 1950 the sewage from the Inn was discharged to this property. The deed to the Nichewaug Inn property appears to continue to recite rights on the former Fiske property. Lacking other viable options negotiations might be made for siting a well on this property as a better and less disruptive option to having a disposal system on the land. Estimated Cost \$30,000.00

Removing the well from the property allows more freedom in the design and siting of the sewage treatment facility and the use of the open spaces.

However, note that as a non-profit organization with land holdings across the state the Trustees' conservation land is frequently eyed as a potential site for a water supply or wastewater facility. The Trustees have always opposed these proposals due to various concerns such as the intent of the original donor of the land and of setting a precedent that their conservation lands not be altered to accommodate non-conservation uses. In addition, it is understood that the easement was extinguished by the Trustees when the Trustees assisted with the conveyance of the Nichewaug Inn property to town ownership in 2007.

# Obtain a nearby parcel on which to site a new well either by purchase or easement:

The purpose of this option as in the previous option is that it avoids restrictions on the use of the Nichewaug Inn property related to Public Water Supply. This also allows more options in

the design of sewage treatment and aesthetic placement of facilities. Estimated Cost \$30,000.00 + Land Cost.

## Formation of a Water Supply District within the Center Village Area of Petersham:

This option presents a long term solution not just to water supply for the Nichewaug Inn property but to the village. Many properties in the village are not large enough to contain both a water supply well and a sewage disposal system. Removing wells from these lots will permit more cost effective septic repair on these lots. Additional benefits result from having better fire protection and lower insurance rates within the village area. This would also potentially benefit real estate values.

While this is a much more expensive option, it is more inclusive and beneficial to the entire village. Many opportunities for grants and financing of Public Water Supply systems exist. There currently are few grants or financing options for sewage disposal. I am not able within the scope of this report to make a cost estimate for this option but would recommend pursuing a grant to study the cost and feasibility.

#### 2 SEWAGE TREATMENT:

For this report the sewage discharge is considered to be 3,300 gallons per day resulting from 30 bedrooms. The existing records indicate the soils are a sandy loam with a percolation rate of 30+ minutes per inch and an estimated seasonal high water table of 22 inches. The Title 5 loading Rate is .33 gallons per day per square foot for a percolation rate of 30 minutes per inch.

A standard leaching area design would require 10,000 square feet of leaching surface. In terms of leach fields this would equate to two fields of 50feet x 100 feet or equivalent

If one used an alternative system such as the Elgin Mantis M5 the required area would drop 40% to 6,000 square feet of leaching surface. A similar result could be achieved with other similar alternative systems.

The oldest technology in existence for treatment the recirculating sand filter used in conjunction with a pressure dosed leach area would reduce this to 5,000 square feet of leaching surface.

A more modern approach which also yields a reduction of 50% or 5,000 square feet of leaching surface is the Orenco Systems Ad-Vantex AX-100 geo-textile treatment unit which functions the same as a recirculating sand filter, but is more contained and easier to maintain.

Given the site constraints I believe the most cost effective system for this site would be the Ad-Vantex. This system requires a contract with an operator having a class 3 treatment plant operators license to ensure regular monitoring and servicing. The system also has an advanced control panel which would be connected to a dedicated phone line allowing the master computer to report operating issues to the operator and the owner as they occur. An added benefit is that the authorized operator can access the panel remotely to adjust the process.

The above examples are given to show alternatives, there are other technologies which have been approved by Mass DEP that give reductions similar to those above.

The construction of a system to serve this property would be considered to be the repair of an existing failed system as long as the design did not increase flows from the historical flow for the property.

### **Conclusion:**

While at one time it appears that there were recorded deed rights to use the former Fiske property across Route 32, these have apparently been extinguished, and I feel that the treatment system would be most effective constructed on the immediate property. I believe that the best results can be achieved by removing the water supply from the immediate site and keeping the treatment system on the site. Given the location of the village within a reach of the Quabbin Watershed and the issues discouraging construction of a village wide treatment system as well as the lack of public money for such a project, on-site solutions at present seem the best answer to waste disposal.

#### **Ted Carman**

From:	Henry Woolsey <henrywoolsey@verizon.net></henrywoolsey@verizon.net>
Sent:	Tuesday, October 04, 2016 12:29 PM
То:	Ted Carman
Subject:	FW: Nichewaug Inn water supply, Petersham

From: Paine, Douglas (DEP) [mailto:douglas.paine@state.ma.us]
Sent: Friday, July 29, 2016 11:44 AM
To: Henry Woolsey
Subject: Re: Nichewaug Inn water supply, Petersham

Henry,

Here's a brief summary of our Wednesday discussion.

Although we discussed several options, the last diagram, showing the two wells on the current Inn property appears to present the best option. That depiction showed a smaller well, with a Zone I radius of 100-feet serving 9 unit (12-bedrooms) within a structure identified as the Inn. A second, larger well with a Zone I radius of 150-feet, would serve a separate 12 unit (20 bedroom) structure identified on the plan as the Academy.

MassDEP would allow two (or more) PWS wells on one property, with overlapping Zone I protection areas. Although there is no minimum separation distance between the two (or more) wells, the closer they are, the more likely that the wells would adversely impact each other, so maximizing the separation distance is generally considered to be beneficial.

Each PWS well must have a Zone I which is either owned or controlled by the PWS owner. If not through ownership, Zone I control may be through an easement, a CR, or in some cases an MOU. Uses within the Zone I must be limited to passive recreation (walking, cross country skiing, etc.).

In order to estimate the amount of water required for a residential project, MassDEP would assign a flow rate of 110 gallons per day per bedroom. In the scenario presented, the required flow from both wells combined would be 3,520 gallons per day.

Zone Is are calculated using the formula [150 x log of pumping rate (in gallons per day)] - 350.

Wastewater flow rates in excess of 2,000 gallons per day on a single parcel, may result in a requirement for additional wastewater treatment.

