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I, Emily Woods, hereby submit this original work as part of the requirements for the degree of Master of Architecture in Architecture (Master of).

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Student's name: Emily Woods

This work and its defense approved by:

Committee chair: Jeffrey Tilman, PhD

Committee member: John Eliot Hancock, MARCH
Economies of Reuse

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by

Emily Woods

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Committee Chairs:
Jeffrey Tilman, Ph.D.
John Hancock
Thomas Bible
Abstract

The economic and social conditions of today present an opportunity to explore how the reuse of existing buildings can be a financially and environmentally viable alternative to new construction. There is currently no clear method for evaluating existing buildings in terms of their overall value, taking into account economic, environmental, and social values. Such a model would systematically determine whether or not to invest in remodeling a building or to simply demolish it and build new. This approach will place a comprehensive value on an historic piece of architecture in order to decide which buildings will remain a part of our fabric and which should be replaced.

Four surplus Cincinnati Public Schools buildings have been evaluated in order to determine which has the most potential value for reuse, not just economically, but also environmentally and socially. Upon site selection, the evaluation model is used to decide the level of development and program that would provide the highest comprehensive value for the developer, users, and the community alike. This triple value model can be used to aid architectural design decisions in order to produce a development that has the highest potential value in all three categories. The use of this comprehensive value model allows the inherent social and environmental values of endangered existing buildings to offset the economic argument for demolition.
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PART I: Introduction

The German philosopher, Walter Benjamin said, “to live is to leave traces” [Brooker and Stone pg]. As historic architecture is used and reused over time, evidence of the lives carried out inside is engrained in the built form. We have the opportunity to take advantage of these tangible layers of history to tell the story of the cultures that have passed through our architecture. Stewart Brand, author of How Buildings Learn, declares:

"old buildings embody history... they are worlds; in old buildings we glimpse the world of previous generations." [90]

In Edward Hollis’ recently published work, The Secret Lives of Buildings, he illustrates the little-known stories of several examples of great architecture throughout history to support his manifesto that architecture’s “beauty has been generated by their long and unpredictable lives” [10]. He contends that buildings are treated and remembered as though they have been frozen in time immediately upon completion of construction, “as if history never happened” [5]. He talks about the architect as the master of the buildings he creates, wanting complete control over the destiny of his creations; however, buildings are designed to last, and therefore outlast their masters. Hollis believes that a building can begin to lead its true life only after the designer’s death, unbounded by the constraints of its human master, free to adapt and change at its will [8].

The current social and economic climate is ripe for an investigation of how adaptive reuse can prove a sustainable and economically viable method of preserving history and culture. The current literature makes a convincing case for historic preservation’s role as an economic and urban revitalization tool. Adaptive reuse is also being discussed as a means to achieve sustainable design. However, there is no clear method for evaluating existing buildings in terms of their overall value, taking into account economic, environmental, and cultural values. Such a model would systematically determine whether or not to invest in remodeling a building or to simply demolish it and build new. This model will place a comprehensive value on an historic piece of architecture in order to decide which buildings will remain a part of our fabric and which should be replaced.
Adaptive Reuse

The reuse of buildings over time is an age-old strategy, which saves cultural relics by allowing them to stay functional beyond their intended purpose. Early civilizations adapted historic structures to fit their cultures. Early Christians converted pagan temples and mosques to churches centuries ago. The ancient Theatre of Marcellus in Rome has even been converted to modern apartments. Royal palaces, such as the Louvre in Paris, have long been used as museums and galleries accessible to the public. In Remaking America, Barbaralee Diamondstein asserts that if worthwhile buildings are to be saved they will have to be saved for something other than mere restoration [18].

The Parthenon is an icon of the greatness of the ancient Greeks. Built for the Greek goddess Athena in the 5th century BC, the temple has survived the ages through changing function as the culture around it evolved. In the 5th century AD, the temple was converted to a Christian church. When the Turks took over Athens in the 15th century, it turned into a mosque. The Parthenon has since ceased use as a religious building. It now stands as a testament to how reuse and changing meaning can allow a structure to survive beyond its initially designed function [Hollis 15-35]. A contemporary example of adaptive reuse is the Tate Modern. When the museum was searching for a new home for their collection in London, they chose to convert the 1947 Bankside Power Station. The gigantic turbine hall provides a dramatic entrance space that could unlikely be paralleled in a new building: the smaller-scale boiler rooms were well-suited to become gallery spaces. London made a statement about the value of reuse in choosing to convert an old building for the museum rather than build new.

Edward Hollis insists that buildings will and, perhaps, should change. Drawing a comparison with the retelling of stories through generations; he claims that the incremental change of buildings has been the mechanism of their preservation. Because they allowed change and continued to be used through time, they endured in a way they never would have otherwise [11-12]. The very definition of the word building implies change and continuous renewal; it is both a noun and a verb, the act of becoming.

Most old buildings are repurposed due to convenience; simply for the fact that they are already standing ready for a new use. In some cases, historic structures are reused in order to preserve history in some way through the building. Similarly, designers or developers may think that their building project will have added ‘character’ if it incorporates an existing building. Great examples are restaurants in old factory buildings or storefronts, spaces with exposed brick and beams that harken back to the ‘old country’ in a way that a new building could not. Most recently existing buildings have been reused simply as a mechanism to promote the developer as ‘green.’ Though reuse can be a highly sustainable alternative to new construction, it is frequently followed as a fashionable thing to do rather than to pursue the goals of the project’s stakeholders.

Real Estate Development

Stewart Brand points out that there are far fewer schools of real estate or books on the history of real estate than of architectural history, but real estate has “vastly more influence on the shape and fate of buildings than architectural theories and aesthetics.” [80] While architects have a hand in what buildings look and feel like, the individuals with money are the ones who decide which buildings are built, which are demolished, and which are reused. It can be argued that the people who build America are not architects, but real estate development professionals.

The Urban Land Institute’s (ULI) definition of real estate development is the “continual reconfiguration of the built environment to meet society’s needs.” [Miles, Haney, and Berens 3] Development projects include a variety of stakeholders with an interest in the outcome of the project (government, community, lenders, users), as well as many participants who make the project possible from inception of the idea to construction (architects, marketing consultants, land planners, contractors). In the development process the developer manages these various interests and inputs in order to meet their objectives and make sure development potential is realized. Traditional developers represent the private interests present in the process; the goals of the private sector participants are to minimize risk while maximizing their personal or institutional objectives, which are primarily monetary in nature. [Miles, Haney, and Berens 3]. Where non-profit community developers or public entities interested in real estate development may have other criteria for measuring the success of a project, private developers are mainly concerned with maximizing profits.

A real estate development project is deemed feasible if its estimated value exceeds the costs. [Miles, Haney, and Berens 11] The following is a discussion of traditional valuation methods. A developer seeks to maximize the possible return of a project with minimal time and financial commitment. According to the ULI, this return can be seen in terms of financial value (receipt of the development fee and profits from the sale or lease of the finished project) as well as personal satisfaction and improved reputation (which can lead to future development opportunities). It is also simply states that value is realized by providing usable space over time. [Miles, Haney, and Berens 4].
In the real estate market, buildings are evaluated according to their estimated market value. Within the real estate industry, the meaning of the term market value is debated; some believe it refers specifically to the market price of a property while others contend that a property has some sort of intrinsic value which varies from this price. Due to the wide variety of definitions for market value, Congress passed the Financial Institutions Reform, Recovery and Enforcement Act in 1989, designating the Uniform Standards of Professional Appraisal Practice (USPAP) as the standard in appraising real property. The USPAP defines market value as:

The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus (McMahan 520).

According to the definition, it should follow that an appraisal does not provide an exact financial value of a property; rather it is an estimate that results from a logical assessment of observable facts. Within the standard there are three methods with which to estimate market value: sales comparison, income, and cost. In the sales comparison approach, market value is estimated based upon the market prices of comparable properties that have been sold recently. The comparable value can be adjusted for differentiating factors such as market conditions, location, and physical characteristics of the land or building. (See Fig. 1 Method 1 diagram).

The income approach estimates the potential gross income and costs of a leasable property if redeveloped. The projected net operating income of the property is calculated according to the costs to repair these deficiencies (McMahan 523-533). (See Fig. 1 Method 2 diagram). The third possible strategy for appraising property is the cost approach, which estimates the cost to replace the existing building with new construction. From the construction cost estimates, the appraiser factors in the depreciation of the existing building, taking into account the physical deterioration of the structure and functional obsolescence of the original use. The depreciation is calculated according to the costs to repair these deficiencies (McMahan 523-533). (See Fig. 1 Method 3 diagram).

Method 1: Sales Comparison Approach

Sales Price of Comparable Property
→ $$$$$

Method 2: Income Approach

Redeveloped Property
→ $$$$$

Method 3: Cost Approach

$$$
VS.
$$$$$

Estimated Cost to Renovate

Estimated Cost to Replace

Rypkema defines feasible real estate project as one with a “reasonable likelihood of satisfying explicit objectives when a selected course of action is tested for fit to a context of specific constraints and limited resources”  [Feasibility Assessment Manual 2]. The feasibility in Rypkema’s terms, is not absolute but is dependent on the objectives of the various players in the development process; the main objective could be profit as is traditional, but this definition allows for the inclusion of other objectives of key stakeholders. Rypkema argues that a feasibility analysis is not as simple as looking up a figure in a real estate book, but is a process of narrowing the range of uncertainty through the systematic identification of objectives, constraints, and opportunities as indicated in the process diagram [Feasibility Assessment Manual 2].

Rypkema’s feasibility assessment follows a traditional approach to building appraisal after identifying key objectives. One exception is his acknowledgement of political factors that can directly influence the success of a project; these factors include the attitudes at city hall as well as advocacy groups and the community at large [Feasibility Assessment Manual 61]. These opinions become especially relevant when a development involves the preservation or demolition of an historic building. The other key feature of Rypkema’s feasibility assessment is the inclusion of a section on the physical constraints of the existing building, specifically the structural condition, the character-defining attributes, and building systems issues present in the existing building. However, Rypkema still only devotes one sub-point out of the entire outline to describing the building’s “form, materials, dates of construction, and any significant additions,” and a conclusion of whether the building can be “redeveloped so that it is appropriate to the needs of the proposed users” [Feasibility Assessment Manual 75]. This area is where the assessment could take into consideration the intrinsic values of the historic building but falls short.

Evaluation Precedent: Donovan Rypkema

Donovan Rypkema is the principal of PlaceEconomics, an economic development consulting firm in Washington, DC. He is recognized as an industry leader in the economics of preserving historic structures, working with groups such as the National Trust for Historic Preservation, the Urban Land Institute, and various state and local governments. Rypkema developed the Feasibility Assessment Manual for Reusing Historic Buildings for the National Trust for Historic Preservation. Rypkema defines feasible real estate project as one with a “reasonable likelihood of satisfying explicit objectives when a selected course of action is tested for fit to a context of specific constraints and limited resources”  [Feasibility Assessment Manual 2]. The feasibility in Rypkema’s terms, is not absolute but is dependent on the objectives of the various players in the development process; the main objective could be profit as is traditional, but this definition allows for the inclusion of other objectives of key stakeholders. Rypkema argues that a feasibility analysis is not as simple as looking up a figure in a real estate book, but is a process of narrowing the range of uncertainty through the systematic identification of objectives, constraints, and opportunities as indicated in the process diagram [Feasibility Assessment Manual 2].
CINCINNATI PUBLIC SCHOOLS FACILITIES MASTER PLAN
CLASSROOM FACILITIES ASSESSMENT:

STUDENT CAPACITY & ENROLLMENT
HISTORICAL REGISTRATION
ARCHITECTURAL SIGNIFICANCE
ACREAGE
ADA COMPLIANCE
SITE CIRCULATION

BUILDING SYSTEMS RATING: SATISFACTORY, NEEDS REPAIR,
NEEDS REPLACED

DOLLAR ASSESSMENT (PRICE/SF)
COST TO REPLACE:
RENOVATE/REPLACE %
COST TO RENOVATE = $6,801,019.32
COST TO REPLACE = $8,993,646.24 75.62%

CEFPI APPRAISAL RATINGS:
POINTS/POINTS ALLOCATED FOR:
SITE
STRUCTURAL/MECHANICAL
PLANT MAINTAINABILITY
SAFETY/SECURITY
EDUCATIONAL ADEQUACY
ENVIRONMENT FOR EDUCATION

1000 POSSIBLE POINTS  605 POINTS EARNED
61% RATING CATEGORY: BORDERLINE

Example CPS Facilities Assessment
Schiel Elementary School
Information from Schiel Prim Schl Arts Enrchmnt Report
The Problem

The market and traditional evaluation methods have inherent shortcomings when it comes to appreciating the comprehensive value of an existing building. The current model does not account for all of the economic benefits of reusing existing buildings. It ignores the environmental value of avoiding unnecessary demolition and new construction and it is incapable of representing the social value of old buildings. Developers have no systematic model in place to determine the value of an historic piece of architecture; one that includes economic value as well as the more intangible cultural, historical, and environmental values.

The result of this situation is that perfectly viable historic buildings are demolished because developers do not see a value in saving them and incorporating them into new developments. Stewart Brand said that architecture is seen as permanent, but the bricks and mortar are deceiving [2]. Buildings become disposable when the value of the land that they rest on surpasses the value of the architecture. The turning point for many buildings comes at the “demolish or rehabilitate” decision. These marginal buildings are the ones in danger of disappearing if their value is not totally understood.

What is needed is a hybrid approach to building valuation that will bridge the gaps that inherently exist between financial value and cultural value, allowing some way to codify the total worth of a building. There is limited research in the areas of preservation economics and the environmental sustainability of building preservation. Little has been found to measure the social values of existing buildings. In his report on the economics of historic preservation, Randall Mason asserts that the limited research done in the economics of preservation is less focused on the core values of preservation, which he states to be cultural and aesthetic significance, and is more interested in the measurable benefits expressed as market values [2]. Mason contends that proving the importance of the expression of culture inherent in historic building preservation is no different from the plight of the arts to prove their worth. He observes that economists often dismiss qualitative values of preservation because they are not susceptible to standard methods of appraisal. He argues that the cultural values are essential to the nature of historic preservation, so they must remain part of the discourse for decision-making [1].

The economic value of historic buildings is still not fully understood by the development community at large, as the traditional models of valuation do not fully account for the nuances of preservation. However, Donovan Rypkema’s work makes the economic case for reusing existing buildings, both for private interests as well as local governments. This work will be expanded upon in Part 2.
PART 2: The Case for Reuse

Just as the industrial revolution and IT revolutions of the past transformed the way we do business, the environment has been and will continue to be that catalyst in the contemporary economy [Stone and Washington-Smith 26]. In the current economic climate, the companies that find their competitive edge will be the ones to survive. Further, as sustainability becomes the standard, companies need to exercise sustainable practices simply to maintain the norm. The Dow Jones Sustainability Index is comprised of companies that manage economic, environmental, and social factors affecting their business. Dow Jones claims that there is “mounting evidence that their financial performance is superior to that of companies that do not adequately correctly and optimally manage these important factors” [Stone and Washington-Smith 122].

Hilary Stone and John Washington-Smith, authors of Profit and the Environment, consider sustainability a holistic concept that includes the well-being of human, ecological, and economic sub-systems. They claim that the attainment of sustainability will bring about the inevitable converging of social impact, environmental impact, and the financial stability of business [20]. Real estate development, like all business, must follow these trends if it is to succeed in this new environment. Buildings and property must be valued according to their environmental and social impacts, as well as financial. This section will enumerate how building reuse creates (and preserves) value in each of these areas.
The Future of Business

In 1970, Nobel laureate Milton Friedman wrote an article for The New York Times entitled, “The Social Responsibility of Business Is to Increase Its Profits.” This theory was based on the opinion that if a company maximized its profits, then it could employ more people and therefore benefit society. Though formally the business world has come a long way from this position, the desire to first make money and do good as a secondary goal still underlies much of contemporary corporate strategy.

Today, most large organizations are familiar with and practice some form of corporate social responsibility (CSR). While the appraisal method is strictly based on financial value, many businesses are beginning to see the importance of triple bottom line thinking, incorporating the value of the environment and society in doing business. Integrating sustainability and ‘green’ sensibilities has become increasingly rooted in corporate culture and the triple bottom line has become a new measure for corporate performance [Stone and Washington-Smith 79]. A report commissioned by the United Nations Environment Program claims that the triple bottom line programs of CSR pay off. The findings indicate that a strategic focus on sustainable development is positively aligned with business success. It also proved the reverse, that poor sustainable development performance is correlated with damage to brand value and reputation. This report was commissioned in 2001 when these issues were not even as popular [Stone and Washington-Smith 113].

Corporate social responsibility has come under scrutiny in recent years, as ideas about the social responsibility of business evolve. The core of corporate social responsibility is about businesses avoiding risk and minimizing a company’s liabilities, such as their environmental impact and other unjust business practices, rather than maximizing benefits of their practices. Many corporate social responsibility programs have also been criticized as being charity programs for businesses when they make donations to causes rather than adjust their business practices.

The future of business is green. The new trends in the social responsibility of business are in embracing the full meaning of sustainability and incorporating considerations for the environment and society into the business model from the beginning. Business schools are beginning to teach toward this future. “At its core, the green revolution at undergraduate business programs is about finding solutions to overpopulation, natural resource depletion, climate change, pollution, and other problems that continue to plague the world. Experts say solving the world’s problems is no longer the work of the government alone but also requires businesses—and individuals—to do their part” [Meglio]. They are teaching the next generation what it means to be an ethical and successful company.

William McDonough critiques the integration of sustainability into business with triple bottom line thinking in his 2002 article, “Design for the Triple Top Line.” McDonough argues that the triple bottom line still focuses on the economic concerns of the company, with the ecological and social benefits of business as an afterthought. The environment and social equity are seen as liabilities that must be minimized; the three lines are not integrated but are viewed as competing interests. McDonough submits the concept of the triple top line as an alternative process and measure of corporate success. The concept of the triple top line shifts the accountability for ecological and social value to the beginning of business thinking, so that those values are inherent in the product [mcdonough.com].

McDonough uses the fractal triangle to depict the interactions between the three forces of economy, ecology, and social equity, as everything is part of the interconnected world (See the diagram to the right). Though capitalism identifies value in the economic realm, it impacts the social and ecological realms also. Until now we have dealt with these impacts with environmental regulations and social movements. The fractal triangle shows how ecology, economy, and social equity align into a spectrum of value. McDonough argues that the forces should not be at odds with each other but the dynamic interplay between the three interests can actually generate value [mcdonough.com].

‘Creating Shared Value’ is an even newer concept developed not by designers, as McDonough’s was, but by economists. It shows how the financial world is beginning to recognize that business must be completely redesigned with the goal of benefitting society hand in hand with creating economic value. Harvard business professors Michael Porter and Mark Kramer, who coined the term, described the problem in an article for the Harvard Business Review entitled, ‘Creating Shared Value’:

“A big part of the problem lies with companies themselves, which remain trapped in an outdated approach to value creation that has emerged over the past few decades. They continue to view value creation narrowly, optimizing short-term financial performance in a bubble while missing the most important customer needs and ignoring the broader influences that determine their longer-term success.” [Harbor]
The economic value of historic buildings is still not fully understood by the development community at large, as the traditional models of valuation do not fully account for the nuances of preservation. Rypkema’s work makes the economic case for reusing existing buildings, both for private interests as well as local governments. Rypkema asserts that historic preservation has matured from being a movement whose end was to save old buildings to a strategic component of urban policy as a vehicle for larger and more important ends [Mason 2].

Rypkema reminds his readers that the entire process of economic development hinges on encouraging the private sector to act in such a way to generate community benefit [Economics of Historic Preservation 31]. To incentivize private developers to consider the well-being of the community in addition to their profit margin, federal and state governments have provided tax breaks for historic preservation projects. These incentives attempt to affect the market forces so that preservation of local history and community values may be financially feasible. Federal tax laws provide developers a twenty percent tax credit on certified historic structures and ten percent for those non-historic buildings built before 1936. Philadelphia Mayor Edward Rendell argues that the rehabilitation tax credit pays for itself through income taxes on the wages produced, corporate income tax, capital gains tax, and real estate taxes [Economics of Historic Preservation 32]. The State of Ohio provides income tax credits of twenty-five percent for registered historic buildings, in addition to the federal credits.

Economic Case for Reuse

Randall Mason of the University of Pennsylvania provides a broad overview of the literature that pertains to the economics of historic preservation in his report for The Brookings Institution. In summarizing the current literature, Mason contends that historic preservation has proven its worth as an economic development tool. He enumerates the various methods of determining the value of an historic building, from economic impact studies to basic cost studies comparing alternate uses of a piece of land and existing buildings. The paper calls for further research in the field of the economics of historic preservation in order to answer the question, “does preservation pay?” [Mason executive summary].

Mason asserts that the limited research done in the economics of preservation is less focused on the core values of preservation, which he states to be cultural and aesthetic significance, and is more interested in the measurable benefits expressed as market values. Mason contends that proving the importance of the expression of culture inherent in historic building preservation is no different from the plight of the arts to prove their worth. He observes that economists often dismiss qualitative values of preservation because they are not susceptible to standard methods of appraisal. He argues that the cultural values are essential to the nature of historic preservation, so they must remain part of the discourse for decision-making [2].

Mason lays out the various available approaches to assessing the value of historic buildings. Basic cost studies and economic impact studies focus on the monetary, or “use,” value of development projects. The cost studies primarily look at the cost benefit analysis for a private developer, relying on straightforward statistics and mathematical analysis [12]. Donovan Rypkema provides an example of a pro forma for a historic preservation project. Developers can use pro formas for alternative strategies to determine the most profitable course of action.
The economic impact study measures the use values of historic preservation in a regional economy. The study generates conclusions in the form of, “one dollar in preservation spending yields x dollars of economic activity.” David Listokin and his colleagues at the Center for Urban Policy Research at Rutgers University made the public economic case for preservation in their 1998 Housing Policy debate. Listokin et al. report that the benefits associated with preservation have lucrative multiplier effects in the economy, increasing national income, GDP, employment, and taxes generated. The research team compared the economic impact of investment in residential historic rehabilitation with various industries including book publishing, pharmaceutical production, and electronic component production, learning that rehabilitation has the greatest impact on the economy. In a study for the state of New Jersey Historical Trust, Listokin et al report that each $1 million spent on historic rehabilitation creates two more jobs, $79,000 more in income, and $13,000 more in taxes than the same investment in new construction. [Mason 8-9]

Donovan Rypkema asserts, “dollar for dollar, historic preservation is one of the highest job-generating economic development options available.” To illustrate his point, he reports that $1 million of rehabilitation creates 12 more jobs than manufacturing $1 million worth of cars, 20 more jobs than mining $1 million worth of coal, and 29 more jobs than pumping $1 million worth of oil [Economics of Historic Preservation 13]. Rypkema also reports that historic buildings are ideal to attract small businesses [25], which account for the majority of new jobs created. Rypkema claims that historic preservation stabilizes neighborhoods because it creates a sense of place, connecting people to their neighbors and community, and encouraging public participation. Tangibly, this connection to the neighborhood stabilizes property values, encourages reinvestment, and enhances tax revenue.

Rypkema enumerates the benefits of investing in historic preservation projects in his 1994 book, The Economics of Historic Preservation. He claims that in hard economic times, preservation can be affordable when new construction is not because projects are frequently more modest in scale. Rypkema also provides three principles that have come from his research which indicate that historic rehabilitation is a cost-competitive alternative to new construction:

1. When complete renovation is required it is usually possible to build something new that is cheaper. But that something will almost inevitably be a structure of vastly lower quality and shorter life expectancy than the quality rehabilitation of a historic structure.

2. When the cost of a high-quality new building is compared to the quality rehabilitation of a historic building, the high-quality new building will generally be more expensive.

3. While sometimes more expensive and sometimes less expensive, historic rehabilitation—square foot for square foot—is nearly always a cost-competitive alternative [87].

Preservation can be a time-saving alternative to new construction, as well. Rypkema reports that rehabilitation reduces construction time up to 18 percent. Additionally, approval of a rehabilitation plan nearly always takes less time than obtaining approvals for demolition and new construction [89]. While the cost of projects vary, Rypkema reports that if a new construction project includes the cost of razing an existing building, the cost savings from rehabilitation should range from 3 to 16% [87]. Demolition costs of historic buildings are frequently higher even than newer buildings, as they are often in areas of more compact development where care must be taken not to damage surrounding buildings, and removal costs from those dense areas are also higher [90].

The economic impact study measures the use values of historic preservation in a regional economy. The study generates conclusions in the form of, “one dollar in preservation spending yields x dollars of economic activity.” David Listokin and his colleagues at the Center for Urban Policy Research at Rutgers University made the public economic case for preservation in their 1998 Housing Policy debate. Listokin et al. report that the benefits associated with preservation have lucrative multiplier effects in the economy, increasing national income, GDP, employment, and taxes generated. The research team compared the economic impact of investment in residential historic rehabilitation with various industries including book publishing, pharmaceutical production, and electronic component production, learning that rehabilitation has the greatest impact on the economy. In a study for the state of New Jersey Historical Trust, Listokin et al report that each $1 million spent on historic rehabilitation creates two more jobs, $79,000 more in income, and $13,000 more in taxes than the same investment in new construction. [Mason 8-9]

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Evaluation Precedent: The Presidio

The Presidio of San Francisco is the largest historic preservation project in the US and is a great example of how private interests can see profit from the reuse of historic structures. The old military base was established by the Spanish in 1776 and the Spanish military left the site in 1994. The Presidio became a National Historic Landmark District in 1962 because it was the site of events of national historical significance and because the district has outstanding examples of design and construction that characterize a way of life [presidio.org].

The Presidio of San Francisco is said to be a park unlike any other because it is to be developed by private interests, balancing preservation goals with financial. The US Congress established the Presidio Trust to develop a master plan for the park’s future. They were given the authority to lease property in the park to private investors in order to generate revenues and become self-sufficient. The trust finances loans for redevelopment with government allocations but is mandated to be self-sufficient by 2013. Of the 750 buildings on the site, 300 have been rehabilitated since 1994. The project is successful thus far, as the Presidio reported profits of $56 million through rehabilitation project in 2009 which will be used to invest in ongoing preservation projects [presidio.org].
Environmental Case for Reuse

The Environmental Protection Agency (EPA) estimates that demolition of commercial buildings generates approximately 155 pounds of waste per square foot [epa.gov]. Therefore, a 60,000 square foot building would produce 4,650 tons of waste to go to a landfill. In sustainable development, it is important to remember not only that the Earth has limited resources, but also has a limited capacity for waste. This is the crux of the “reduce-reuse-recycle” movement of decades ago; it must be remembered on a larger scale. Just as a soda can has value after it is empty by being recycled into valuable material, so should an old building. This number also has a direct financial impact as well. It is estimated that construction waste disposal costs $136/ton [Lennon], meaning over 4,000 tons would have a disposal cost of $632,400.

According to the National Trust, building operations are estimated to account for about 85% of a building’s total energy use over time [preservationnation.org]. This gives way to the argument that the embodied energy lost in the demolition of an existing building is negligible compared to the savings from more efficient operations in a new building. Data from the US Energy Information Administration suggests that buildings constructed before 1920 are more energy efficient than those built until 2000; the improved performance after 2000 compared to pre-1920 is marginal. (See Fig. 15.) Additional research into making existing buildings more energy efficient will help ensure the energy consumption of these pre-1920 buildings remains in line with new construction [eia.gov].

The National Trust and the Advisory Council on Historic Preservation reported in the 1970s that conserving buildings saves embodied energy while reducing the need for new materials. Embodied energy is defined as the amount if energy associated with extracting, processing, manufacturing, transporting, and assembling building materials [Advisory Council on Historic Preservation 7]. The Council developed calculations to measure the embodied energy in existing buildings, the energy needed for construction, energy needed for demolition, and the energy needed to operate completed buildings. In a case study to illustrate these findings, the consulting firm of Booz, Allen, and Hamilton found that Seattle’s Grand Central Arcade embodied 17 billion BTUs of energy, while a new building of equivalent size would require 109 billion BTUs to construct. Preserving the building saves at least 92 billion BTUs, as embodied energy in the demolition of the existing building is not included. These 92 billion BTUs are equivalent to 730,000 gallons of gasoline according to the study [Advisory Council on Historic Preservation 4].

The May T. Watts Appreciation Society adapted the calculations included in the 1970s report into an online embodied energy calculator at their website. This calculator can estimate the energy embodied in an existing building which is lost in demolition, the energy involved in the act of demolition, and the energy used to rebuild a new building. It can convert the BTU estimates to gallons of gasoline to give a more tangible idea of the impacts. An example has been provided to the right. The demolition of a 60,000 square foot school and the construction of 60,000 square feet of residential space in its place embodies the amount of energy equivalent to the gas needed to drive a car around the Earth over 1000 times [thegreenestbuilding.org]. (See Fig. 14 opposite.)
The National Trust for Historic Preservation has taken the stance that historic preservation is an essential element of sustainable development and is crucial to combating climate change. Because nearly half of the nation’s carbon emissions come from building construction and operation, the Trust maintains that reusing and improving the efficiency of older buildings is an essential part of a sustainable future. They promote that existing buildings are our greenest renewable resource. The National Trust Position Statement reads:

“Historic preservation can- and should- be an important component of any effort to promote sustainable development. The conservation and improvement of our existing built resources...is crucial to combating climate change.” [preservationnation.org]

They created the Preservation Green Lab to understand the environmental value of existing buildings. As an example project, the National Trust is rehabilitating the 1885 Emerson School in Denver to convert the building for use as a neighborhood center for preservation. The National Register nomination notes that the quality of the Emerson School’s design comes from its nearly century-long life as an elementary school. The greening of the Emerson School gives the National Trust an opportunity to test and demonstrate techniques for making historic buildings more sustainable and energy efficient. The project is set to be complete in 2012. According to the National Trust’s website, the sustainable design strategies include:

1. Restoring the original energy conserving features in the building, by removing added partitions that block daylighting and making the large original windows operable again to promote passive ventilation
2. Replacing the outdated and inefficient heating and cooling systems with a new system that includes the use of geothermal technology
3. Replacing inefficient lighting and plumbing fixtures
4. Tightening the building envelop by adding insulation in the attic and sealing the original doors and windows. [preservationnation.org]
Social Case for Reuse

Our historic buildings and townscapes help to root us in our communities. They connect us with generations that have come before us and those that are still to come. Setha Low, professor of environmental psychology and anthropology and author of Social Sustainability, maintains that the built environment is essential to identity:

“Physical reminders provide a sense of place attachment, continuity and connectedness that we are rarely aware of but that play a significant role in our psychological development as individuals and in our ‘place identity’ or cultural identity as families or ethnic and cultural groups.” [qtd. in Managing Change 47]

Tax laws dictate that buildings are depreciated over roughly thirty years; this suggests that a building has no value in a matter of a few decades. [Brand 84] This assertion is based on the flawed idea that the resources of the world belong to those who are currently living. Society has begun to understand that the Earth’s resources are finite and must be responsibly managed; forests are protected from being logged to the point of destruction, waterways are protected from pollution, and animals are protected from extinction. It is accepted that these things are an integral part of the Earth’s ecosystem, but it is also acknowledged that they have value to humankind that is less measurable. Oceans are beautiful to look at, entertaining to play in, and relaxing to listen to; the old redwood forests show the awe-inspiring value of age and help humankind to understand their place in the history of the world. The historic stock of buildings can teach society similar lessons if given the chance. David Throsby, a professor of economics and author of The Economics of Historic Preservation 28 emphasizes protecting the vulnerable, respecting social diversity, and ensuring that we put priority on social capital. [Preservationnation.org]

When the costs or benefits to society as a whole are not reflected in the market price for a good or service, externalities occur [Warren 234]. These are frequently called spillover costs or benefits because others besides the direct users of the good or service are affected. When a developer is only concerned with internal costs and benefits of a particular project, they can produce negative externalities, such as increased traffic in an area, pollution, or excessive noise. These externalities are a direct result of the project but affect more than just the users of the project; they detract from society’s welfare in everyday living. Public intervention is used to address negative externalities for fear that the free market would produce too many negative externalities if left on its own, as private interests typically only consider their own internal costs and benefits. Alternatively, externalities can be positive in nature. The benefits of historic buildings to society as a whole are not reflected in their market prices. [Warren 241]

There are many stakeholders to answer to in the contemporary business environment. In real estate development projects, developers must answer to a variety of groups in addition to their financial shareholders and investors. Entities with vested interests in development projects include the surrounding community, local government and businesses, planning and historic preservation guidelines, and the environment. It is in the best interest of both the developer and the various stakeholders to cooperate throughout the development process. An integrated practice has the ability to produce more value for more interest groups as well as facilitate the progress of the project for the developer. The community plays a big part in determining the course of a development project. Through formal design review processes as well as general political pressure, community groups can force changes in a development project and cause lengthy delays. Time is truly money in a development project; delays can lead to increased consultant expenses, not to mention a delay of seeing income on the project and the resulting interest on loans. Inclusion of the public early on can help to alleviate some of these potential problems.

In every development project, there are public sector participants, at least in the form of government regulations. The goal of the public sector is to maximize net social benefits, with the understanding that the true social cost of an action is equal to the external costs to society plus the private costs incurred by the developer [Warren 227]. The specific goals of the public sector are to promote sound development, ensuring that projects are safe, attractive, and located conveniently in order to help the city function well. The responsibility of public sector participants is to improve the quality of life of the public without harming the environment [Warren 226].
Measuring Non-Use Value

Though the importance of old buildings is recognized by society, common valuation approaches still do not account for the range of values that they hold. Contingent valuation studies, however, attempt to measure the ‘non-use’ values of public goods. These ‘non-use’ values are the intangible cultural, aesthetic, and historic values that traditional evaluation models cannot account for; this analysis attempts to assign a price to these priceless features. The contingent valuation analyses are a type of “stated-preference” study where potential consumers are asked their preferences rather than using market data to collect information on potential benefits of a project [Mason 15-17]. These studies are sometimes thought of as “willingness to pay” studies [Warren 230]. For a potential historic preservation project, consumers might be asked, “if historic homes nearby were rehabilitated and maintained, how much more would you be willing to pay in taxes.” Another example might be, “How much more (or less) would you be willing to pay in rent for a residential unit in a rehabilitated historic building than in a newly constructed building on the same site.”

Similarly, shadow pricing is a method of attributing values to social costs and benefits that do not have direct market prices. A shadow price is an adjusted version of the market price that reflects social valuations. The prices can be determined either through the inference approach, where prices are adapted from similar situations, or the questionnaire approach, where the public is asked to value certain costs and benefits. The results are in the form of willingness to pay; the aggregate willingness to pay is equated to the market value of a cost or benefit [Warren 229].

Historical value arises from the particular historic period that a monument represents in the development of human activity in the field that the monument represents. For a monument of architecture to have historical value, it would need to embody the characteristics of a particular architectural period or style, such as Baroque or Classical or Modern. To have the greatest historical value, according to Riegl, a piece of architecture should be preserved in its original state as thoroughly as possible [Riegl].

Art value is related to historical value in that both require some level of understanding of art or history in order to appreciate the monument. Art value comes from the contemporary viewer’s perception of the aesthetics and design of the monument. This perception is related to what Riegl calls the modern kunstwollen, or the collective interests and attitudes in a particular phase of artistic development. For a building to have art value, its historic design aesthetics must appeal to the contemporary viewer’s aesthetics. Art value, therefore, changes with the kunstwollen of the contemporary onlookers [Riegl]. In the postmodern period, for example, the contemporary kunstwollen did not appreciate the aesthetics of modern architecture; modern architecture therefore did not have art value to this group of viewers.

While historical and art value require some understanding of history or art, age value is appreciated by the masses. Discernment of age value comes from the perception that the monument was not made recently. It is strictly appreciating the past for being part of the past. A building with age value would be one that has in some way fallen into ruin, either through a crumbling structure or simply the patina of surfaces. To appreciate a building’s historical value, it should be preserved in its original state; conversely, to promote the age value, the building should be allowed to mature and evolve, as nature would have it do, so its oldness may be apparent [Riegl].

“Alois Riegl, the nineteenth century Austrian art historian, outlined how the meaning of art and history is understood in his article, “The Modern Cult of Monuments: Its Character and Its Origin.” His work was translated into English in 1981 when it was published in Oppositions magazine. Riegl submits a number of different values that can be seen in different types of ‘monuments,’ be those architectural or fine art monuments. Three important values as they relate to existing buildings are historical value, and art value, and age value [Riegl].

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New Value Model

Reconceiving the real estate assessment model hinges on the assumption that historic buildings offer something that a new building can never provide. They have an inherent value that people have trouble articulating, let alone assigning monetary value to. A new building can never be the same as an old building; it cannot embody the time period in which an old building was constructed or hold the history that took place in and around an old building. Stewart Brand goes so far as to claim that it is now almost universally understood that old buildings are more valuable than new [109].

Ideally, all aspects of a building’s value could be described in monetary terms. Developers would like to have a model that converts environmental and social welfare values into monetary terms, so that they can integrate them into their standard financial model (as in Fig. 19). This can be seen in current triple bottom line standards. However, the current state of preservation economics research is such that intangible values cannot be monetized in a standard way. A comprehensive value model is needed to combine the traditional building appraisal process with the inclusion of the environmental and cultural values inherent in existing buildings. This requires some way of pricing the priceless or quantitatively describing the qualitative. Such an appraisal method will give developers a more clear understanding of the total worth of buildings in order to determine the most valuable course of action in developing a site with an existing building demolition or rehabilitation.

Such a ‘comprehensive’ model is not possible at this time. Therefore, the value model proposed in this thesis is structured according to the concept of sustainable development (see Fig. 20). The potential projects of interest are those that are financially ‘marginal’. These are potential development projects that are borderline profitable according to traditional appraisal methods. To bolster the feasibility of these projects, their inherent values that are left out of the purely financial appraisal can be added. These values are expressed in their own individual terms instead of dollars, so there is no way to equate them with one another or with the financial appraisal. In theory, renovate and replace alternatives can be considered for a particular site. If the potential net profit of the renovation project is slightly lower than that of the replacement project, the social and environmental values can compensate for the lost profit, as in Fig. 21.

Four potential projects will be assessed the potential project with the greatest amount of these intangible values in addition to its marginal profit will be deemed the most feasible and potentially profitable project.

Brand suggests that every building leads three contradictory lives: as property, as habitat, and as a component of the community [73]. This is directly in line with triple bottom line thinking and McDonough’s triple top line design process. As a property, a building is a tangible entity owned by a person or group of people; for a developer, the purpose of property is to generate profit for them. In this time of socially and environmentally responsible business practices, the contemporary developer cannot simply view a building as a piece of property but must consider a building and site in all three of these lights. A building as a habitat can take on two meanings: one, as a space in which people have lived and left traces of their story and two, as an environmental area inhabited by humans as well as a plethora of other organisms. As a component of the community, a building has value to the community members, either aesthetically, culturally, or historically [Brand 73].

The economic component is based on traditional real estate appraisal strategies discussed earlier in this thesis. Conclusions from a real estate pro forma will determine the net profit of a development project, considering purely financial information. Additionally, the eligibility of a project for state and national tax incentives can impact its financial value.

The environmental value of reusing existing buildings comes from the volume of waste saved from landfills as well as the embodied energy in the existing buildings that is saved by avoiding demolition and new construction.

The social value of reuse is based in Alois Regl’s values of monuments discussed earlier: existing buildings will be evaluated to determine if they have significant characteristics of age value, historic value, or art value. Historic value and age value can be determined with fairly objective methods. If a building is designed in a particular architectural style or if an historic event occurred there, it will be deemed to have historic value. If a building shows significant signs of age, such as patina, or shows the use of historic materials or construction methods, it will be deemed to have age value. Art value is dependent on the aesthetic preferences of the current local population and therefore has been determined by the Cincinnati Preservation Association.
Cincinnati Public Schools has abandoned several of its historic school buildings in the facilities master plan. Four surplus schools that are currently not slated for renovation but have particular social and environmental value to their communities include:

- Lafayette-Bloom Middle School
- Linwood School
- Central Fairmount School
- Hyde Park School

Central Fairmount and Hyde Park are currently being used as swing space for other schools, but their fates after they have served that purpose are unknown. Linwood and Bloom were up for auction in June of 2009 but have not yet been sold. These schools provide a great opportunity for study and application of the new value model as they are large, structurally sound buildings, with a great deal of architectural character and meaning to their communities. This section includes a study of each of these buildings, determining their environmental and social values, and potential for reuse. One school will be selected as the most valuable building and the architectural project will be an adaptive reuse project that preserves and creates value for the private investor as well as more broadly for society.

Fig 23
Lafayette-Bloom School

Lafayette-Bloom Middle School is a 100,000 square foot building built in 1915, located in Cincinnati’s West End. Sited on a tight 1.5 acre urban lot, the market value is about $1.4 million. The building is located in the Dayton Street Historic District, along with many beautiful turn of the century homes along the street. The zoning in the area is multi-family residential. The school was up for auction in 2009 but never sold.

A preliminary financial comparison of renovating the building and replacing it with a new multi-family building is shown opposite. Environmental costs as well as social values are also expressed.
Linwood School

4900 Eastern Ave.
Built 1929
43,141 SF building
2.07 acre site

Land Value $82,100
Improvement Value $1,585,200
Total Market Value $1,667,300

Cost per square foot $38.65
Cost per acre $805,458

Zoning: Commercial CC-P

Linwood School is a 43,000 square foot building built in 1929, located in Cincinnati's East End. On a 2 acre lot built into a steep hill, the market value is about $1.7 million. The building is located in a suburban commercial and residential area. The zoning in the area is commercial community pedestrian. The school was up for auction in 2009 but never sold.

A preliminary financial comparison of renovating the building and replacing it with 7 new commercial lots is shown opposite. Environmental costs as well as social values are also expressed.

Fig. 29 Zoning Map - East End

Fig. 27

Fig. 28
Central Fairmount School

2475 White St.
Built 1906

77,530 SF building
5.6 acre site

Land Value = $59,660
Improvement Value = $782,770
Total Market Value = $842,430

Cost per square foot= $10.87
Cost per acre= $150,433

Zoning: Single Family SF-2

Central Fairmount School is a 78,000 square foot building built in 1906 located in the Fairmount neighborhood on Cincinnati’s West Side. Sited on a large 5.6 acre suburban lot, the market value is about $840,000. The building is located in a suburban residential area outside of the city. The zoning in the area is single-family residential. It is currently being used as swing space for other CPS schools but there is no plan for the long term future of the school.

A preliminary financial comparison of renovating the building versus replacing it with a new multi-family building or 120 new single family lots is shown opposite. Environmental costs as well as social values are also expressed.
Hyde Park School

Hyde Park School is a 62,000 square foot building built in 1901, located in the Hyde Park neighborhood of Cincinnati's East Side. Sited on a large 3.4 acre suburban lot, the market value is about $5 million. Due to its age and historical features, it is likely that this building could be listed individually as a historic place. The building is located in a pedestrian-oriented suburban mixed-use area outside of the city. The zoning in the area is single-family residential. It is currently being used as swing space for other CPS schools but there is no plan for the long term future of the school.

A preliminary financial comparison of renovating the building and replacing it with a new multi-family and commercial buildings is shown opposite. Environmental costs as well as social values are also expressed.
Application of the Model: Site Selection

This metric cannot include every possible value that an existing building may have. However, it attempts to provide a broad picture of a building’s value in the three main categories of economy, environment, and social equity. Hyde Park School and Lafayette-Bloom School rank equally on this evaluation metric, taking the highest value in four categories each. Bloom is stronger in the environmental category because of its size while Hyde Park is stronger in the social equity category for its historical significance. Hyde Park School has been chosen for the design project because its initial economic analysis returned a higher net profit than did the redevelopment of Lafayette-Bloom School, it can take advantage of historic preservation tax credits, and it scored in all three social equity categories. This school is a prime example of a property who’s land value could likely exceed the value of the building and would be at risk of demolition as a result. The social values of the building help make the case for its preservation.

<table>
<thead>
<tr>
<th>SITE</th>
<th>Economy</th>
<th>Environment</th>
<th>Social Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Net Profit</td>
<td>Tax Credit</td>
<td>Less Refound</td>
</tr>
<tr>
<td>Hyde Park</td>
<td>$2,971,510</td>
<td>20%</td>
<td>2,971,510 tons</td>
</tr>
<tr>
<td>Linwood</td>
<td>$1,475,090</td>
<td>10%</td>
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<tr>
<td>Fairmount</td>
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<tr>
<td>Bloom</td>
<td>$357,248</td>
<td>45%</td>
<td>357,248 tons</td>
</tr>
</tbody>
</table>

Fig. 36
Site Analysis:
Hyde Park, Cincinnati

Hyde Park is a neighborhood on the east side of Cincinnati, Ohio. It was established to be an enclave for the area’s most prosperous residents by a group of wealthy businessmen called the Mornington Syndicate [hydeparksquare.org]. Today, Hyde Park is a community for people from many walks of life who choose to live, go to school, shop, eat, and play amongst abundant green spaces, parks, shops, restaurants, and historic homes.
Hyde Park Demographics

Fig. 42

Area: 3.5 square miles
Population: 12,860
Population Density: 3,663 per square mile
(Cincinnati: 4,249 per square mile)

Households:
Median age: 32.7
Mean household income: $98,655
Median household income: $75,295

Nonfamily households: 67.6%
Householder living alone: 56%

Homes:
Median rent level: $732.00/mo
(Cincinnati: $490.00/mo)
Median home value: $271,800
(city-data.com)

Fig. 42

Average value home value by type:

- Detached Houses: $600,871
- Townhouses: $175,059
- Two-unit Structures: $184,161
- Three or Four Unit Structures: $600,746
- Five or more unit Structures: $271,261

American Dreams- Upper-middle income urban households
family mix
35-54
professional
median income $58,517
ethnically diverse
college graduates

Bohemian Mix- Upper-middle income urban households
family mix
<55
professional
median income $57,083
college graduates
nation's most liberal lifestyles
ethnically diverse, progressive mix
early adopters

Executive Suites- Upper-middle income suburban households
no kids
<55 yrs
management
median income $78,008
college graduates
white-collar professionals
manageable commute to downtown jobs, restaurants, and entertainment

New Empty Nests- Upper-middle class suburban households
no kids
65+
retired
graduate plus education
median income $75,295

Pools & Patios- Upper-middle income suburban households
no kids
45-64 yrs
median income $76,099
college graduates
white-collar managers and professionals, now at the top of their careers

[Information from Nielsen MyBestSegments, www.claritas.com]
Project Site:
Hyde Park School

Edwards Road Site Panorama

Fig. 50

Edwards Road Site Panorama

Fig. 51

Observatory Avenue Site Panorama

Fig. 52
Proposed Site Zoning

**CN-P Commercial Neighborhood**

Mixed-use neighborhood commercial centers that reflect smaller-scale, pedestrian-oriented development with continuous street frontage and a mix of commercial and residential uses. Typical uses include retail, services, housing, office, open space, eating and drinking establishments and smaller-scale public and recreation and entertainment uses. Future development must be of a pedestrian-oriented commercial or mixed-use nature, serving the immediate neighborhood. [Cincinnati Municipal Code]

- Max Building Height: 50 feet
- Min Building Height: 15 feet
- Front Yard Setbacks: 0 feet
- New Residential:
  - Lot area/unit: 700 square feet
  - Front yard setback: 0 feet
  - Side yard setbacks: 0 feet
  - Rear yard setback: 25 feet
- Residential in Existing:
  - Lot area/unit: 500 square feet
The school building will be adapted into partially residential and partially commercial space. The development will be called Mornington after the original name of Hyde Park. Commercial space will be limited to lower and ground levels of the 1929 school addition on the western part of the site. New construction will be added on the site to supplement the building area; this building(s) will be split into commercial on the ground level and residential on the levels above. Parking will be added below grade under the new building and open site area.
Residential Component

Fig 54

BEDROOMS IN OWNER-OCUPIED HOUSES AND CONDOS

1-bedroom condo units:
- 1000 square feet
- $200,000

2-bedroom condo units:
- 2000 square feet
- $400,000

Currently, most owner-occupied homes in Hyde Park are three-bedroom units. Hyde Park has a smaller percentage of one- two- and three-bedroom units than the Cincinnati average. This project will add one- and two-bedroom condominium units to the Hyde Park Square area in order to cater to the many smaller households in the area.

List of Activities:
Residential Component

Unit
- Living
- Eating
- Sleeping
- Office work
- Bathroom
- Storage
- Garden
- Laundry
- Individual entrance

Building
- Management/leasing
- Maintenance
- Entrance- doorman
- Parking
- Storage
- Mail
- Exercise
- Conference room
- Party room
- Office area
- Restaurant

Qualitative Experience:
Residential Component

The condominiums in the Mornington development at Hyde Park School will be a high-end mix of one- and two-bedroom units. They will cater toward the young single professionals, and young married couples without children which predominate the Hyde Park area. The development will be environmentally friendly, boasting a recycling and composting program, as well as vegetable gardens for tenants. Residents will enjoy 24-hour security and on-site laundry and parking. Units will feature contemporary finishes to contrast the historic building.
Consistent with the proposed zoning of mixed-use neighborhood development, Mornington will program commercial functions on most of the ground level of the overall development. The gymnasium and first two levels of the 1929 school building will be available to be adapted into commercial functions. The ground level of new construction which fronts Edwards Road will also be dedicated to commercial space at a pedestrian scale. Parking will be shared between the residential and commercial functions of the development.

Market assessment has indicated the need in this area for a new full-service restaurant, a coffee shop, and a small amount of retail space.
List of Activities: Commercial Component

Coffee Shop
- Drink-making
- Drink-serving
- Order-taking
- Seating
- Restrooms
- Storage
- Kitchen/Cleaning
- Retail area

Contemporary American Restaurant w/ Cocktail Bar
- Kitchen
- Bar
- Bar seating
- Dining room
- Entrance
- Parking
- Valet/Host
- Restrooms

Cooking-oriented Retail Space
- Product display
- Cooking display
- Eating area
- Check-out
- Classrooms
- Stock area
- Restrooms

Qualitative Experience: Commercial Component

Restaurant
The Kilgour: A Contemporary American Restaurant answers Hyde Park’s need for an upscale, full-service restaurant and bar. The Contemporary American concept fills a void in the area’s current mix of ethnic cuisine. The restaurant will be the place to be on date night, a great venue for getting a group of friends together, or a business meeting. The bar will mix up some of the best cocktails in town for restaurant- and bar-goers alike. What small and casual Arthur’s on Hyde Park Square lacks, the Kilgour will make up for with its character and sophistication. The dining area will likely occupy the school’s gymnasium, breathing new life into a once lively space.

Coffee Shop
Hyde Park Square is lacking the basic neighborhood staple of a local coffee shop. Space in the Mornington development will be dedicated to filling this void. The coffee shop and small bakery will be a daily stop for the busy professionals beginning their morning commute and the stay-at-home mom or dad getting the kids off to school. Due to its location, it is an ideal stop for the Hyde Park resident who is out walking their dog or getting some exercise in the morning. It is an ideal spot for the graduate student looking for an interesting place to study. The location will be most convenient for the residents of Mornington itself, able to take an elevator or staircase down to their morning pick-me-up. It’s ‘little shop’ character will be a welcome addition among the small businesses in the area.

Retail
Hyde Park has a plethora of specialty shops, from pet clothes to hunting clothes, from antiques to unique gifts. Residents will embrace a cooking-oriented retail outlet. Like a local Williams-Sonoma, this shop will sell specialty foods, food preparation needs, and serving and entertaining staples. Additionally, the store will feature cooking demonstrations and tastings. A convenient store for party preparations, the store can also be a place for a night out of eating, drinking, and shopping with friends.
Conclusion

In developing a new evaluation model for real estate, which includes the inherent environmental and social values of buildings, one can place a comprehensive value on an historic piece of architecture in order to decide which buildings will remain a part of our fabric and which should be replaced. The use of this comprehensive value model allows the inherent social and environmental values of endangered existing buildings to offset the economic argument for demolition. In the case of this project, such a model allows a developer to assess several potential sites, as well as development strategies, in order to develop a project that has the highest total value. It can be seen through the application of the model that a site with a high land to building value ratio does not necessarily need to be leveled and redeveloped in order to be economically viable. Further, the preservation and reuse of the existing historic school building prevents the waste of vast amounts of physical resources and embodied energy, while protecting a socially and culturally significant piece of architecture. A development on the Hyde Park School site, which consciously maximizes social, environmental, and economic values for multiple stakeholders has the potential to have a higher total value than a development designed for mere financial value. This approach saves a cultural relic, while ensuring profit for the developer.
Bibliography


