

Realizing Sustainability: Implementing a Vision in Burlington, Vermont

by

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B.A., Geography
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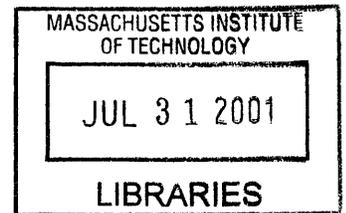
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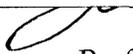
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Abstract

Sprawling growth patterns have characterized the spatial development of cities in the United States since the advent of the automobile. Extensive research has shown that low-density, haphazard development (a.k.a. sprawl) causes numerous deleterious impacts on communities. Communities are beginning to recognize the consequences of sprawling development patterns and wish to shift those patterns to more sustainable land-use, economics, ecologies, human settlements, and human relationships. Although efforts at all levels are being made to slow down sprawl, low-density suburbs are built in place of new development or redevelopment near existing infrastructure in central cities.

Even in rural Vermont, sprawl threatens the unique village centers surrounded by breathtaking working landscapes that Vermonters cherish and visitors flock to. Burlington, Vermont recognizes that sprawl is degrading the natural landscape. As part of a promulgated vision of sustainability in municipal plans, Burlington accepts their role as a regional growth center.

Compact mixed-use development patterns are identified as the type of urban form commensurate with curbing sprawl. Burlington designated certain growth centers within the city and is attempting to increase density in those areas. This thesis explores the types of local land-use tools Burlington is using to focus development in designated parts of the city, as one aspect of a sustainable growth strategy.

The case study reveals that residents oppose higher density projects due to a perceived threat to their pervading quality of life. However, people do not have an innate awareness and understanding of what design elements contribute to the quality of their built environment. Since urban design and architecture determine the quality and character of compact development and compact development is essential to curb sprawl, then good urban design and architecture are critical components in curbing sprawl. In order for higher density projects to gain acceptance, the methods of analysis used for development review need to shift to more qualitative measures based on the type of site design and architectural features that communities prefer.

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Introduction

Central cities, and now suburban communities, are beginning to realize that sprawling development patterns, which have dominated the landscape since the birth of the automobile, threaten the very qualities of their communities to which they became accustomed and may have taken for granted. Qualities like a clean environment, high levels of traffic service, unique architecture, defining public spaces, and an overall pride for their community. Sprawl, almost by definition, means low-density and leapfrogging development patterns. It causes communities of all scales to experience congestion, declining tax base, disconnect to the land and community, aging infrastructure, fragmented human relationships, and environmental degradation. As a result, communities wish to alter their growth patterns toward more sustainable land-use, economics, ecologies, human settlements, and human relationships.

Sprawl is a consequence of sociological beliefs, federal policies and programs that favor low-density residential development, and a lack of comprehensive planning at every level. Since growth is the primary catalyst for economic success, a concentrated informed effort to monitor and guide that growth is imperative for current and future generations to realize a future, free from pollution and decentralized, segregated development patterns. Commonly known as growth management or smart growth, strategies have emerged that attempt to view the cumulative impacts of sprawl from a regional perspective. A smart growth or growth management strategy involves coordinated land-use, transportation, and infrastructure planning between neighborhood, municipal, regional and state entities through an inclusive and participatory democratic process.

Currently, some communities throughout the United States, and the world, are approaching a consensus about the development patterns necessary to create a sense of place, reasonable live to work distances, environmental protection, and socially equitable communities. Places like San Francisco, California, Portland, Oregon, and Seattle, Washington have adopted mechanisms to curb sprawl and move toward a more sustainable future. A city moving towards more sustainable development patterns favors more compact communities that consume less natural and open land, are supported by transit, and where land-use is mixed with housing, shopping, and work areas are within proximity. To actually do this, communities are faced with a great challenge.

The qualities of urban patterns that Americans value most are perhaps most easily seen in the State of Vermont. A state comprised of villages with vibrant main streets, defined public spaces, and strong communities, surrounded by breathtaking natural landscapes. Vermont is widely viewed as a national treasure by outsiders and even more so by Vermonters; needless to say they place a great importance on preserving their rural culture and working landscape. Unsurprisingly, it continues to be the destination of migrating ex-urbanites who seek a slower paced lifestyle and vast natural beauty. Ironically, migrants settle in development patterns that threaten the very amenities they value in Vermont. Like the rest of the United States, Vermont's small village-like towns and working landscape are imperiled by sprawl. Since the 1960s, Vermonters recognized a growing trend of leapfrogging development, strip commercial development, and declining new development in traditional town centers. Accordingly, the states' legislative and executive branches have generally responded to the statewide phenomena with policies to guide new development and initiate more regional cooperation.

Burlington, the largest city in Vermont, remains the most prolific in the state in developing strategies that attempt to curb sprawl at a local and neighborhood level. They are motivated to both preserve and encourage vibrancy in their city and through local efforts, to prevent the deterioration of Vermont's cultural and environmental heritage. Entrenched in this challenge since the 1970's, citizens and city officials continue to assert themselves through public participation, policy and programs to achieve a more sustainable community based on a strong environmental ethic. Burlington recognizes the detrimental impacts of sprawling suburban developments, large single-use developments, strip development and auto-dependent growth. The city is directly affected by sprawl: the population declined over the last twenty years while the county has grown considerably, downtown has seen limited investment, the number of new housing starts is miniscule compared to outlying suburbs, the housing vacancy rate is currently .24% (5% is considered good), and retail sales are threatened by big box retailers in the suburbs. Despite these trends, Burlington continues to thrive economically and socially.

Burlington wholeheartedly buys into the statewide philosophy that patterns of settlement should resemble a more traditional New England village-like pattern characterized by clear boundaries, higher density, mixed uses surrounded by forests and farms and served by public transit.

In modern nomenclature, this traditional place of concentrated development is termed by the city and county as a “regional growth center.” To combat recent land-use and growth trends, Burlington sees this shift as imperative to become a more sustainable community. They accept and embrace their role as a regional growth center to absorb population growth. To that end, Burlington takes a proactive and comprehensive approach to prepare for growth, while cognizant of preserving neighborhood character, their present quality of life, and their natural environment.

Their common vision emerges from an inclusive public process derived from the grassroots (from the citizens). Citizens and city officials are committed to addressing the issue of growth in a responsible and holistic manner. A dialogue is burgeoning in the city about the amount, type and the quality of growth that the city wants to idealize. Although the amounts of growth and investment are linked to market forces, Burlington actively tries to attract investment and population while preparing for growth with a cautious hand. In order to grow in a sustainable fashion, a number of policies and programs currently exist in the city intended to put Burlington on the road to preparing for growth. In addition, these policies are commensurate with a smart growth approach to reduce common negative effects of sprawl-like policies or characteristics.

Since 1973, Burlington has completed a state-mandated Municipal Development Plan (MDP) every five years. The MDP is intended to state a general vision for the city as well as provide a set of action items and policy proposals for issues ranging from the built environment to public facilities. Although each MDP articulated a vision for the city analogous with a more sustainable and efficient city, the 1996 MDP was based on self-defined principles of “sustainability.” Though the impetus for these plans can be tied to state regulation and legislation, the defined vision of sustainability comes from a community that recognizes the consequences of sprawl and advocates for the preservation of a village-like environment and sense of place.

Perhaps the largest component of sprawl is the siting of new development on undeveloped land located at the periphery, which lacks existing infrastructure or public facilities. Infill development is a ‘smart growth’ or ‘growth management’ tool that can be very effective in preventing sprawling development patterns when combined with other growth management strategies. The quality type of infill development is important as well. Essentially, growth should occur in compact, mixed-use settlements. One element of Burlington’s strategy toward sustainability

is to shape their role as a regional growth center by concentrating growth in appropriate areas of the city. The 1991 and 1996 MDP's designate existing neighborhoods, downtown, and the waterfront as specific areas to absorb this growth.

One effort to implement that goal was the designation of Neighborhood Activity Centers (NAC). NACs are intended to exploit underutilized commercial areas within residential districts and transform them into higher density, compact mixed-use settlements. These NAC's serve the local area and surrounding communities. They are intended to provide services to local residents in order to reduce the need to travel for basic services. In effect, they work against sprawl-like impacts by reducing traffic congestion, providing a pedestrian oriented public space, engendering community vibrancy, and to some small measure, providing opportunities for new development on existing land to preserve land on the periphery. The case of NAC's demonstrates an effort to bring to fruition the growth and development patterns compatible with the vision of the MDP and of a sustainable city.

Although Burlingtonians accept their role as a center for growth, very few undeveloped parcels exist in the city. Most built-up parcels are underdeveloped – well below the maximum allowable density. The strategy is to increase density in selected areas with existing infrastructure, simultaneously preserving open space and environmentally significant and sensitive areas. Yet specific development projects, which attempt to implement this vision, have been met with some opposition.

The first major challenge to growth in designated areas is NIMBYism (Not in My Backyard). Residents of Burlington generally support the city's strategy, but their personal choices and concern for maintaining the character and quality of their neighborhoods often conflict with that strategy. Thus, the question emerges: how can Burlington add density to the urban form and hold true to their objective of human scale neighborhoods? The second major challenge is to persuade developers to build in the city rather than on undeveloped rural land. Developers contend that building in central cities is significantly more expensive than in suburbs. Furthermore, land is cheaper on the periphery, permitting is less time consuming, site preparation is simpler, the approval process is more predictable, and parking is ample. Lastly, since developers build on the edge because it is easier and more profitable, the challenge to the state, regions and cities is to discourage

development or prohibit it in sprawling patterns through land trusts, legislation and restrictive zoning, at the same time increase opportunities for profitable development that is less destructive. Even though this thesis focuses on a local approach to curbing sprawl, clearly infill development cannot curb sprawl alone. It can only be effective if part of a comprehensive growth management plan for the region, which discourages low-density outward development on the rural landscape.

Although Burlington and Vermont are small-scale places compared to other cities and states, the problem of sprawl is blind to scale. The difficulty of increasing density in existing neighborhoods, while preserving the current quality of life, encouraging developers to build near existing infrastructure, and discouraging development on rural and agricultural land is ubiquitous. So, on the surface, the case of Burlington has relevant implications for other places. While Burlington's efforts and experience are significant for other cities to learn from, like any community, some elements that contributed to sprawl in Vermont are place specific. The paradox lies in the fact that the rural and pastoral heritage of Burlingtonians and Vermonters could be the very factor that prevents them from achieving more compact development.

Because Burlingtonians are politically active and conceivably the most influential stakeholders in policy and development project decisions, city representatives often execute their wishes. When residents are presented with the prospect of new development projects that will result in significant additional square footage or taller buildings than currently characterize abutting and adjacent properties, they fear a degradation of the current quality and character of their neighborhood. Therefore, their NIMBY attitude toward higher density projects causes projects to be built at much less than the maximum allowable density. Often times residents' cause for concern is unfounded. Their NIMBY attitude is often an uneducated response, brought about by a remedial awareness of the elements that shape the urban form. Moreover, an understanding of how good urban design/architecture can significantly soften perceived impacts of more density and subsequently enhance neighborhood character.

An effort to create a public discussion about the important role of urban design as part of the sustainability initiative is critical for higher density projects to be accepted. Review processes and zoning regulations need to significantly incorporate the role of urban design. In addition, developers should be discouraged from building low-density suburbs; the development environment

must be altered to create greater value for projects in central cities. Essentially, proposed development projects must be scrutinized based on their design and the impact of that design, rather than by numerical values alone.

Methodology

This thesis arose out of my personal concern that sprawl is eroding the unique social and physical attributes that differentiate communities and engender a strong sense of place. Additionally, that current development and consumption patterns, primarily in the United States, are occurring at such haphazard and inefficient rates that I fear the social, physical and natural environment will be so degraded in the recent future that my children will have to take unthinkable precautions just to breathe the air while attempting to experience a national park, a public space, or a 'great street.'

This study of Burlington emerged from a single reading of their 1996 Municipal Development Plan, which promulgated a vision of a sustainable city. Preliminary research revealed that sprawl is of paramount concern to residents in Vermont and specifically Burlington. I am intrigued by the notion that the most rural state in the country is dealing with typically more urban phenomena. Furthermore, Burlington, like no other city, seems the quintessential place to examine a growth center concept as part of a sustainability strategy because of their reputation for concern about social and environmental issues.

My research consisted of reviewing public documents, local data, and conducting interviews with city officials, staff, and representatives from non-profit organizations. The intent of this thesis is to examine what land-use tools, concepts, and programs are used by Burlington to concentrate growth in specific areas as a means to curb the deleterious effects of sprawl and become more sustainable, as they define it. More specifically, I examine the Neighborhood Activity Center concept as one strategy for infill development because infill development is widely accepted as a critical component of curbing sprawl. Initially, I intended to complete a quantitative analysis describing where new development has occurred (in Burlington or on rural land) since the plan was implemented to determine its overall effectiveness to alter recent development trends in the city and

surrounding rural areas. However, the general data on new development within the county shows that it has virtually no quantitative impact on the number of new development in the periphery.

While I abandoned a truly quantitative analysis, my research focused primarily on an analysis of Neighborhood Activity Centers as they were conceived, what has happened since, and what their current situations are today. Because Burlington defines its role as a growth center, I analyze their strategy to increase density in other areas as well. My research shows that increasing density is a difficult task; therefore I identify challenges and barriers to more dense projects in Burlington and provide some recommendations to meet those challenges.

Adding to the quantitative and qualitative research of Burlington in the present, I also consider their recent effort towards sustainability with respect to its past. I came to understand the culture in Burlington, and Vermont as a whole, and how it informs its actions as a community. I believe that these questions are imperative to understand its institutional framework as a factor of implementation and to define the degree to which the implications of its experience have on the applicability to other places.

Summary of Argument

Extensive research has shown that low-density, haphazard development (a.k.a. sprawl) causes numerous deleterious impacts on communities. Yet we continue to see the proliferation of low-density suburbs in place of new development or redevelopment near existing infrastructure in central cities. In Chapter One I seek to frame the problem of sprawl and present the challenges to curb it.

In Chapter Two I show that Vermont and Burlington are committed to a vision of more sustainable land-use planning, driven by an inclusive democratic process. Urban planners, designers, concerned residents, and elected officials at all levels are beginning to realize that the only real alternative to sprawl development is more compact and mixed-use type development patterns. Furthermore, compact development, almost by definition, means more density and residents often oppose higher density projects because they fear that their neighborhood character is threatened. The challenge seems to lie in the quality and character of higher density projects. In Chapter Three I

explain Burlington's experience attempting to alter current development trends by encouraging more compact and mixed-use neighborhood centers and urban densities.

Given the present condition of sprawl; the cultural and institutional structure of Burlington; and the challenge to accepting more density in Burlington; in Chapter Four I make the following case. Since urban design and architecture determine the quality and character of compact development and compact development is essential to curb sprawl, then good urban design and architecture are critical components in curbing sprawl. However, people do not have an innate awareness and understanding of what constitutes good design and cherished places. Moreover, development review processes often analyze projects according to numerical standards and present projects quantitatively to residents. Therefore, in order for higher density projects to gain acceptance, the methods of analysis used for development review need to shift to more qualitative measures based on the type of site design and architectural features that communities prefer.

1 Framing the Problem of Sprawl

1.1 Getting to Sprawl

Since the advent of the automobile sprawling growth patterns have characterized the spatial development of cities in the United States. Evident in rural and urban areas alike, these patterns prevail in sections of the country like the Southwest and the Midwest. However, sprawl and edge cities are becoming apparent in the most historic areas of the country, such as the northeast. This trend has not come without serious economic, social, and environmental consequences. Because growth is the primary catalyst for economic success, a concentrated, informed effort to monitor and guide that growth is imperative in order for current and future generations to achieve a future free from a polluted environment and decentralized and segregated development patterns.

America's vastness and diversity of place contributes to its identity; however its infinite land and resources also entices urbanization and expansion. The notion that as populations grow they can easily move outward is an attractive invitation and innate in humans. This outward expansion perpetuated in early American times through government policies and by the economic and social status achieved by owning your own land. In addition, much of that symbolism derives from anti-urban attitudes that date back to Jefferson and the 'agrarian ideal' (Beatley and Manning, 41). "Such attitudes stem from fears about the relationship between urban areas and density, crime, and health..." (Beatley and Manning, 41).

Numerous federal programs throughout the history of the United States promulgated outward expansion and later suburbanization. During the 1800's the federal government provided incentives for people to settle in new territories in addition to offering land at little or no cost. "Westward expansion became a basic national goal in the nineteenth century –the major national growth policy. 'Manifest Destiny' provided the justification, and free land provided the impetus, as settlers rushed into the new lands of the frontier" (Freilich, 1). These policies were largely responsible for populating the west. Ironically, before the automobile, expansion was constrained by mechanical immobility. Railroads, streetcars and trolleys forced growth to occur on corridors and for people to live within a reasonable proximity to jobs and services. The technological means of the automobile provided low-cost and ubiquitous mobility allowing people to live virtually

anywhere. Cities were relegated to places of commerce and slums, while wealthier citizens moved outward seeking to control their own destiny on vast amounts of land. The American Dream as – the notion of owning a home on a significant piece of land with a white picket fence, two car garage, front and back yard, is a powerful idea in the minds of all Americans. It is an actual measure of success.

This discussion is not meant to judge the correctness of such a dream, but to consider how it is a contributing factor to the outward low-density development in the United States. This dream could be realized on a smaller scale without the automobile, but with it, in conjunction with government actions, a pattern of land use development emerged producing very real negative consequences. “It was only from the post-World War I years to the 1950’s Interstate Highway System that a pattern of sprawling, low-density residential development began to leapfrog away from the central city—a pattern that in the last forty years has accelerated despite political rhetoric, energy crises, and fiscal distress” (Freilich, 16). Americans clearly misunderstand the link between infrastructure and sprawl. In a recent United States General Accounting Office survey to cities and counties about what growth related challenges concern them, 72% of communities concerned about sprawl also cited the biggest growth related challenge was a need for new infrastructure (United States General Accounting Office, 15). Ironically, history has proven, as evidenced by federal highway building, that new automobile oriented infrastructure, without a comprehensive approach of land-use and transportation planning yields, scattered development patterns.

Communities are coming to understand that a pattern of sprawl development destroys the very qualities to which they are accustomed and which they may have taken for granted: qualities like a clean environment, high levels of traffic service, unique architecture and defining public spaces. Additionally, while the low-density development erodes central cities, suburbs are now experiencing the same problems – congestion, declining tax base, aging infrastructure and environmental degradation. According to a poll taken in 1999 by the Pew Center for Civic Journalism, “Americans identified sprawl more than any other issue as ‘the most important problem’ facing local communities” (Schonberger, 7).

Physical characteristics of sprawl are evident from an aerial photograph of a region, from walking in an urban center, from driving through a suburb, or speeding down a highway. The

environmental characteristics are felt in ones daily life and in experiencing a place (neighborhood, city, open spaces). Listed below are the physical, economic, and social attributes of sprawl.

CHARACTERISTICS OF SPRAWL		
Physical	Social	Economic
<ul style="list-style-type: none"> ▪ Low-density development ▪ Leapfrog development ▪ Diminishing rural landscape and agricultural Land ▪ Insipid Architecture, ▪ Homogenous design ▪ Lack of historic buildings ▪ Strip Malls ▪ Parking lots as street frontage ▪ Large residential lots ▪ No Pedestrians ▪ Diminishing Open Space ▪ Dormant Brownfield sites ▪ Aging infrastructure ▪ Decaying urban core ▪ Single use zoning districts 	<ul style="list-style-type: none"> ▪ Perfunctory Citizens ▪ Lacking sense of place ▪ Segregated communities ▪ Ailing public schools in the urban core ▪ Lack of stake in the community ▪ Decline in social interaction ▪ Longer commuting times <ul style="list-style-type: none"> • Time away from family 	<ul style="list-style-type: none"> ▪ Declining tax base in the urban center ▪ Increasing infrastructure maintenance costs ▪ Subsidized new development ▪ Traffic Congestion ▪ Air and Water Pollution ▪ Low public transit ridership ▪ Rising housing prices ▪ Low supply of affordable housing

1.2 Combating Sprawl

In the United States there is a legal basis for overseeing development at both the state and local level. The tenth amendment to the Constitution imparts police power to the state and obligates the state to protect the health, safety, and general welfare of citizens. Although constitutionally this power is given to the state, most states delegate the police power to cities and towns. While this obligates most cities to manage the health, safety, and general welfare of its citizens, it also provides power to make their own decisions with respect to real estate development. In the 1920’s and 30’s most states legislated this police power to cities which in turn adopted their own zoning regulations. As a result, land-use decisions were made locally causing settlement patterns to become regionally fragmented.

Sprawl is a regional phenomenon affected by a myriad of compounding decisions made separately without collaboration or synergy between interrelated issues such as transportation, land-use, sewer and water infrastructure, and open space. These decisions are made at all levels: national, state, local and neighborhood. Not only are the decisions fragmented, but also the responsible institutions are often compartmentalized. Therefore, sprawl is the result of fragmented planning. More coordinated decision-making and planning provides a possible strategy to combat it. This strategy has emerged in the form of 'growth management', or 'smart growth.' Growth management is an effort to plan ahead for a growing population and economy. It is intended to anticipate and manage how and where places evolve. Perhaps most importantly, it is meant to guide the how quality of change will effect a community's sense of place. Douglas Porter, the president of the Growth Management Institute in Maryland, states that growth management is "a dynamic process in which governments anticipate and seek to accommodate community development in ways that balance competing land use goals and coordinate local with regional interests" (Porter, 10). Furthermore, he breaks down the key elements of growth management, which provide a strategic framework.

- "Growth management is a public, governmental activity designed to direct and guide the private development process.
- Growth management is a dynamic process, more than formulation of a plan and a follow-up action program.
- Growth management anticipates and accommodates development needs. The principal purpose of growth management is to foresee and shape the scope and character of future development, identify existing and emerging needs for public infrastructure, and fashion governmental actions to assure that those needs will be met. With few exceptions, growth management programs generally are formulated to accommodate rather than limit expected development.
- Growth management programs provide a forum and process for determining an appropriate balance between competing development goals.
- Local objectives in growth management must relate local and regional concerns...Local governments' management of growth must recognize that communities function within a context of metropolitan economic and social activities, goals, and needs" (Porter, 11).

This framework offers the necessary principles on which local land-use, economic development, and social policy decisions can be based. It requires an inclusive public process to

scrutinize the impacts of certain programs and development projects will have. In addition, values and priorities for communities can be outlined to ensure transparent goals and objectives.

While this framework is essential to coordinate objectives and land-use decisions within a truly democratic process, one question still remains. If the attributes of sprawl are repugnant to citizens, what form and characteristics should physical development patterns take to enable a higher quality of life? Planners contend that more compact mixed-use development is critical to mitigate the numerous negative impacts of sprawl. Locating new development closer to existing infrastructure, public facilities, jobs, and retail space reduces traffic and subsequent air and water pollution. In addition, concentrated development preserves open space and undeveloped rural and agricultural land. As residents live closer to job centers and commercial areas they increase the amount of time spent with family and in their own community, which can give rise to a feeling that they have a real stake in their community.

1.3 Challenges to Compact Development in Central Cities

Communities differ internally on their views of a community vision, on development decisions, and social programs. Their opposition to specific policy or projects intended to curb sprawl may contradict their discontent for sprawl. This issue lies at the heart of why more compact mixed-use development is not occurring in central cities and an explanation for continued development and population of the periphery. Although the idea of smart growth is a populace notion, and smart growth projects or policies are attempted at the neighborhood level they are often met with serious opposition, even from those who generally support the idea that sprawl is bad.

NIMBYism, as it is commonly referred to, meaning Not In My Backyard, is a term that explains the phenomena – citizens opposing certain uses or projects due to a perceived threat to their quality of life and to the physical or environmental conditions of their community. As well, this can occur in very ‘progressive’ or liberal communities. NIMBYism is an attitude often taken by the wealthy in an effort to keep out industry, affordable housing or dense development. The consequence of this attitude can prevent proliferated affordable housing, perpetuate low-density development, and cause very serious environmental justice issues. Since industrial uses are not

located near wealthier citizens, they are sited repeatedly near the poor and typically less mobilized and politically active. This raises a myriad of equity issues and concerns of fairness and proportionality with respect to who absorbs the majority of negative impacts from industrial uses.

Focusing development near existing infrastructure means increasing the amount of development in existing neighborhoods. At the neighborhood level, the prospect of more people or taller, bulkier buildings can scare residents. Often times the number of new units, the height of the building, or the number of square footage will be sufficient cause for residents to take action to stop it. Residents concerned that a specific project will cause more traffic congestion, noise pollution, burden schools, reduce local open space, and generally reduce the current quality of life of the neighborhood. People agree that congestion is bad, that pollution is destructive, that homogeneity is unwanted, that segregation breeds conflict and misunderstanding, and that the cost of maintaining infrastructure for scattered centers of commerce and industry are tremendous. Thus the great challenge is attempting to bring about more dense compact development, while preserving the existing quality of life for residents at the neighborhood level. From a regional perspective, infill development seems logical, but it is necessary to understand these barriers for the institution of progressive development.

Clearly, developers are the players who build sprawl development. It might be easy to castigate them and hold them responsible for sprawl, but neither accurate nor fair. It is important to ask why developers choose to build on the periphery? The Vermont Forum on Sprawl concluded that there are eight reasons:

1. *Land costs tend to be lower.* Land is typically more expensive in downtowns and often requires assembling multiple parcels.
2. *Title problems are less likely to crop up.* Older sites are often deed restricted for certain uses.
3. *Permitting is less complex and time consuming.* Downtown development often requires numerous permits, which require individual review.
4. *Zoning may be less restrictive.* Existing zoning laws prohibit certain uses or building configurations. Often times a zoning change or variance is needed, which prolongs the permitting process and adds substantial cost.
5. *Site preparation is simpler.* Site clearance is more complicated for new construction. Buildings require demolition and the threat of site contamination is greater.

Undeveloped land in outlying areas has little, if no, history of use and site preparation only entails clearing trees.

6. *Construction is simpler.* Building in urban areas can present logistical challenges: neighbor relations, utility upgrades, employee and truck parking, scheduling issues, etc.
7. *Suburban buildings can be bigger.* National merchandisers have standardized requirements for large buildings because the larger the building the lower the costs per square foot for leasing. “In smaller, downtown spaces, economies of scale are hard to obtain, and zoning may limit building heights. Also, corporate retailers tend to seek prototype rectangles with ample floor space. These are easier to provide on new spacious suburban sites” (Exploring Sprawl, Number Five).
8. *Parking is ample.* Because downtowns are inherently more compact, adequate parking for customers/employees can be costly and difficult to provide, especially if underground parking is needed. Suburban lots offer more land, thus the ability to pave vast amounts of land for parking lots. (Exploring Sprawl, Number Five, 2)

Reinvestment in the urban core through more compact development is a critical component of curbing sprawl and heightening citizens’ quality of life. Another equally difficult component is discouraging and preventing development on the periphery. To prevent development from happening on the edge, various techniques are employed all over the country, for example: urban growth boundaries, caps on new square footage, land trusts, and zoning restrictions. This thesis focuses on the former component, encouraging more compact mixed-use development in existing communities. Infill and redevelopment cannot curb sprawl alone; the numbers are just too staggering. Rather a comprehensive regional approach is widely accepted as the only real strategy to put a dent in sprawl. Traditional approaches to planning and building new development are neither holistic nor comprehensive in nature. It fails to consider scale or the great complexity and ingenuity required to ensure the sustainable growth of cities and the preservation of a high quality of life.

Visions of more tightly knit communities surrounding vibrant neighborhood commercial centers may differ in the details and to the degree that a substantial overhaul in policy, trends, and daily actions are required. While a global vision of a more sustainable future is relevant to determine the state of being for the earth as an ecosystem, in order for change to occur several smaller visions need to be adopted at the national, state, county, city and neighborhood levels. Moreover, as numerous visions are translated into multiple actions, a broad understanding of the cumulative impacts of those actions is necessary for any real collective change to occur.

While polls show that people sense that sprawl threaten the current quality of communities and well established places, it is important to conceptualize the type of place that might be more efficient and heighten the quality of life of residents. Timothy Beatley and Kristy Manning in their recent book, *The Ecology of Place*, put forward one such vision. They offer one notion of a future where:

“...Land is consumed sparingly, landscapes are cherished, and cities and towns are compact and vibrant and green. These are places that have much to offer in the way of social, cultural, and recreational activity, where the young and the old are not marginalized, and where there is a feeling of community, an active civic life, and a concern for social justice. In these communities, the automobile has been tamed, many transportation options exist (including public transit and walking), and fundamental human mobility and freedom are enhanced. These are communities in which the economic base is viable as well as environmentally and socially restorative. This vision of place emphasizes both the ecological and the social, where quantity of consumption is replaced with quality of relationships. In short, the vision is about creating places citizens can be proud of—places of enduring value that people are not ashamed to leave to their descendants” (Beatley and Manning, 1-2).

2 Burlington, Vermont

2.1 Context

Introduction to Burlington & Vermont

Burlington is the largest city in Vermont and the heart of Chittenden County. The town was chartered in 1763, it did not incorporate until 1864, an act that split the original town into Burlington and its southern neighbor, South Burlington. Burlington is historically referred to as the ‘Queen City’ due to its traditional role as the economic engine of the state. In 1791, the city was avowed when the University of Vermont was founded. While it is the biggest City in Vermont, it is but one of several traditional town centers in Chittenden County. The others include Winooski, Essex Junction, Milton Village, and Richmond Village. Several publications rank Burlington as the city with the highest quality of life in the nation. It is distinguished because it offers a village like environment with typical urban amenities and a beautiful natural environment sitting on the edge of Lake Champlain. The pace is a little slower in Burlington and residents take pride in their city and embrace its sense of community. As a result, urbanites from the southern northeast have migrated to Burlington since its inception.

Every year tourists flock to Vermont to view vibrant foliage, barns dotted across a landscape of farms and cow pasture, and to experience the hospitality of quaint villages characterized by buildings with pitched roofs surrounding town greens. Vermonters are proud of their rural heritage and lifestyle. They pay deference to the natural environment and believe they have a responsibility to the land as part of their heritage. Although Vermonters living outside Chittenden County often say, “You know what the nicest thing about Chittenden County is? That it’s so close to Vermont,” Burlingtonians take just as much pride in that heritage. Moreover, since Burlington is more urbane than the remainder of the state, they may cherish the natural landscape even more.

It is not surprising that Vermonters who live outside Chittenden County view Burlington as a different place – a town with more urban type problems and a more metropolitan lifestyle. Not only is Burlington the most populated city in the state, but also Chittenden County possesses that distinction for counties. The county holds 24% of the State’s population in contrast to covering

only 6% of the total land area (US Census, 2000). In 1999, approximately 30% of all new housing units in Vermont were built in Chittenden County (University of Vermont, Center for Rural Studies). The county is also the densest part of the state. Residential density in the state is 65.8 persons per square mile compared to 271.9 persons per square mile in the county. Burlington is clearly the densest land area with 2,415 persons per square mile (US Census, 2000).

Post World War II Suburbanization

Before World War II, Burlington, like other eastern U.S. cities, experienced an economic downturn. Following the trend of other eastern cities, post WWII Burlington and the region experienced increased suburbanization generated by a population boom. People were fleeing cities to the South seeking a rural lifestyle that Vermont offered, a trend that continues today. As the population grew, the dominant sectors of the economy shifted. Burlington's economy, as it is today, is dominated by services and banking. The population boom in the 1950's continued in the 1960's. Suburbanization was aided by access to undeveloped land in Vermont, and encouraged by federal investment and policy. As stated earlier, federal investment is one significant cause of sprawl in the United States and Vermont.

After World War II federal housing and transportation programs subsidized low-density development on untouched natural land at the periphery.

“Numerous ‘patchwork’ federal programs initiated in the post World War II period to aid cities (urban renewal, ‘701’ planning grants, the war on poverty, and model cities), actually accelerated the suburbanizing process through its various housing, taxation, and transportation policies. Incentives for the construction of low-density, detached single-family housing were provided by federally insured mortgage money and the many tax advantages of home ownership. The interstate highway system provided access to suburban areas where land was cheaper for residential, industrial, and commercial uses. The net effect of these centrifugal forces was to leave the central city with severe housing, educational, and environmental problems while depleting important natural land resources in the path of suburban development” (Freilich, 1999).

Federal transportation policy guided future growth throughout the country and essentially brought about an auto dependent culture. In the late 1950's Vermont willfully used federal highway funds to construct its portion of the Eisenhower Interstate System (I-90). Thus began thirty years of road planning based on traffic volumes, efficient auto mobility, and sufficient parking. Subsequent zoning and subdivision regulations were crafted to accommodate the automobile. As a

result, streets were designed for cars, development followed highways, and people were encouraged to build on the fringes. Moreover, there was no provision of infrastructure for public transportation, walking or bicycling. Similar to other states and cities, land-use planning followed the dominance of transportation planning: growth management lacked a comprehensive effort to analyze the impacts of this process, nor an effort to manage the growth that occurred. (Champlain Initiative, 35)

2.2 Sprawl: Vermont, Chittenden, & Burlington

Sprawl in Vermont?

When one thinks about where sprawl is, the cities of Los Angeles, Phoenix, and Atlanta come to mind. However, it is prevalent throughout the United States and can be seen by taking a *drive on the highway* traveling out of the urban core of any city passing strip commercial development that precedes low-density suburban communities. Because Vermont is considered a primarily rural place, it might surprise Americans that Vermont also suffers from sprawl. Vermont has dealt with the notion of sprawl since the 1960's. Vermonters believe that their natural environment and lifestyle are their greatest assets. The uniqueness of traditional town centers surrounded by working landscape defines Vermont and people are concerned that sprawl threatens that uniqueness. Since the 1960's, Vermont has struggled to find a balance between growth and preservation. In 1970 Governor Dean Davis asked the question: "How can we have economic growth and help our people improve their economic situation without destroying the secret of our success, our environment" (qtd. in Exploring Sprawl, Number 2, 1) This question continues to vex residents, legislators, planners and developers, but the frightening truth is that sprawl is happening in Vermont and most notably in Chittenden County. The rural landscape is waning, while traditional village centers are passed up for new suburban towns.

Vermonters do recognize sprawl occurring in Vermont and seem to understand what that means. To discern how Vermonters feel about sprawl and what they value most about community, the Vermont Forum on Sprawl conducted a poll in 1998 of over 2,300 Vermonters. Although the results varied by community type, in general "Vermonters value community life, agricultural heritage, a quality environment and opportunity for a good education. They believe communities

should consist of compact settlements with good access to preserved open land and nearby working landscape” (Exploring Sprawl, Number 1, 1).

However, when asked specific questions about the choices they make, there was a significant discrepancy. “Respondents were also given a hypothetical choice between buying a \$100,000 home in an urban or village area close to public transportation, work and shopping or a larger home in an outlying area with longer commutes and more yard space. Overall, 21% of the respondents chose the home in the urban or village area and 74% chose the home in the outlying area” (Exploring Sprawl, Number 1, 3). Therefore, the actions of Vermonters aren’t always consistent with their values. Moreover, a look at development, demographic, and investment trends in the state and the county over several years illustrate that inconsistency.

The State of Vermont

- Between 1982 and 1992 land was developed at a rate two and a half times greater than the population growth. (Exploring Sprawl, Number 6, 2)
- During that same period, approximately 40% of newly developed land was formerly cropland and pastures. (Exploring Sprawl, Number 6, 3)
- Between 1950 and 1990, suburbs absorbed almost 60% of the states total population growth, while only 11% was absorbed by traditional urban centers. (Exploring Sprawl, Number 6, 4)

Chittenden County

- 71% of the County’s population was located in five traditional urban centers (Burlington, Winooski, Essex Junction, Milton Village, and Richmond Village) in 1940. Nearly half the County’s population was located in suburban towns in 1996, while only 40% were located in traditional centers. (Champlain Initiative, 10)
- 66% of new housing units created in Chittenden County between 1940 and 1996 were in suburban communities. (Champlain Initiative, 10)
- In 1940, 64% of the County’s housing units were located in Burlington and Winooski, while in 1996 only 33% were located there. (Champlain Initiative, 10)
- Between 1990 and 2000, the population of Chittenden County grew 11.2%, while Burlington’s population declined .7% (US Census, 2000).

Illustrated below are two maps of that exhibit the growth on undeveloped rural land in Chittenden County from 1969 to the present.

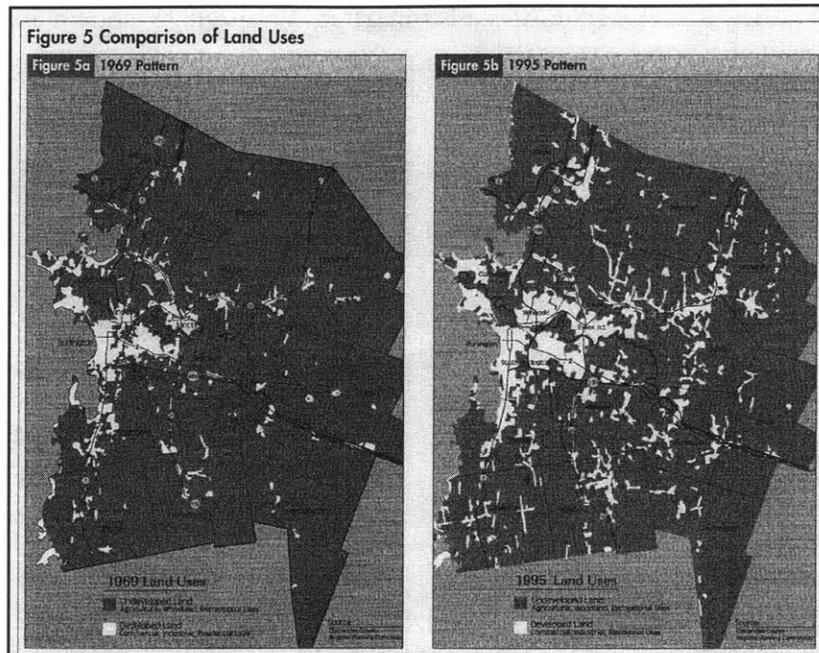


Figure 1 Development in Chittenden County over time. Source: Champlain Initiative, 13.

The Vermont Forum on Sprawl is a non-profit organization whose mission is “to assist Vermont and Vermonters in achieving compact settlement surrounded by rural landscape while encouraging community and economic development to be consistent with this vision” (*Exploring Sprawl*, Number 1, 8). They have completed extensive research to identify the characteristics and causes of sprawl in Vermont. In addition, they have published several manuals to help Vermont communities curb sprawl and bring about more efficient land-use and provision of infrastructure. Lastly, they advocate for state and local legislation that mitigate the negative impacts of sprawl. Therefore, it is appropriate to present the current case of sprawl in Vermont as defined and researched by this organization.

Characteristics of Sprawl in Vermont

In an effort to arrive at solutions, the Vermont Forum on Sprawl recently published *Exploring Sprawl*, a series of pamphlets framing the problem of sprawl in Vermont. Their definition

of sprawl is as follows: “Sprawl is low-density development outside compact urban and village centers, along highways and in rural countryside” (Exploring Sprawl, Number 2, 2). Report Number 2 of the series identifies the characteristics of sprawl in Vermont as shown in the table below contrasted with characteristics of compact development.

Characteristics of Vermont’s compact urban, town and village centers:	Characteristics of sprawl in Vermont:
<ul style="list-style-type: none"> ▪ Higher density than surrounding areas ▪ Mixed uses ▪ Development with pedestrian, bike, transit and auto access ▪ Public facilities, services and spaces ▪ Diversity in the types and scale of housing, businesses, and industries ▪ Open space, including productive farm and forestland, surrounding the town center ▪ A unique cultural heritage 	<ul style="list-style-type: none"> ▪ Large-lot developments ▪ Low average densities, compared to town centers ▪ Development requiring an automobile ▪ Fragmented open space, with scattered appearance and wide gaps between development ▪ Separation of uses into distinct areas ▪ Extension of public services to areas before they are filled in by development ▪ Lack of economic and social diversity in residential areas ▪ Lack of public spaces and community centers ▪ Repetitive, “big box” buildings without distinctive character ▪ Large paved areas: wide roads, more roads, large parking areas

(Exploring Sprawl, Number 2, 7)

The characteristics of sprawl provided above are the physical manifestation of the geography of demographic growth explained earlier. On the basis of quality of life issues alone, one could argue that sprawl should be curbed because it is steadily turning our cities and our society into disconnected, segregated, and lifeless communities. However, sprawl also requires expensive public outlays, much more in fact than for compact development. In Vermont, communities are continuing to realize the degree to which sprawl drain capital budgets. As explained by the Vermont Forum on Sprawl, the following “are the most identifiable financial costs of sprawl in Vermont” (Exploring Sprawl, Number 3, 2):

- *Road operation and maintenance:* Low-density residential and strip commercial development require more money for road maintenance and operations. They are costly to maintain, “Because roads are often longer, wider, and involve more complex drainage and engineering issues” (Exploring Sprawl, Number 3, 2).
- *Police service*
- *Planning and engineering studies* to address sprawl byproducts, such as traffic, downtown viability, new uses for vacant buildings, new parks or bike paths for outlying neighborhoods, the need for more services and facilities, and pedestrian issues. “Although the up-front costs of expanding sewer and water lines to newly developed areas are generally covered by developers and landowners, the long-term costs are born by all ratepayers – and those costs are higher for servicing a sprawling pattern, compared to a compact pattern, of development. Because fees are averaged over the whole service area, commercial strips and sprawled residential areas are not paying the full costs that they create for these systems” (Exploring Sprawl, Number 3, 2).

Causes of Sprawl in Vermont

While the negative impacts of sprawl are apparent, it continues to be the dominant form of new development. This begs the question, “why?” There are several causes of sprawl in Vermont and if the reader wishes to understand these causes in great detail, I refer you to the Vermont Forum on Sprawl. However, for the purpose of this thesis I will only briefly discuss those that inhibit more compact mixed-use development. Sprawl persists because people continue to subscribe to the cultural symbol that owning a large swath of land represents success. Additionally, they don’t mind the extra driving distances, at the beginning.

Although the market demand exists, clearly sprawl development is contrary to the values of Vermonters. One statistic in the poll conducted by the Vermont Forum on Sprawl, “reinforces the statewide vision of compact village and urban centers separated by rural countryside. When such a place was described to respondents, 48% said that they would have some interest in living in this community vs. 31% who would be less interested” (Exploring Sprawl, Number 1, 3). Therefore, if a concerted statewide, regional and local effort existed to invest heavily in traditional urban centers and quality of life issues, demand might change. However, when we consider supply one must understand that it is an issue of simple economics: sprawl is cheaper to build.

Costs can be divided into two categories, entitlement costs and capital costs. Developers often site the permitting process as the main barrier to developing in the core. Many times existing

towns have complicated and lengthy zoning requirements, require public benefits, seek public participation and convene numerous review bodies. During this lengthy and sometimes unpredictable approval process, developers take on a significant amount of risk. They believe that building in an outlying underdeveloped town can be much easier. Building in an urban area presents several physical challenges: contaminated land requiring remediation, oddly shaped parcels, and the required provision of affordable housing, all of which, in theory, raises costs. Not to mention that land is cheaper when in abundance, like on the periphery.

2.3 History of Planning in Burlington

The state of Vermont has a proud tradition of attending to its physical appearance and maintaining its rather unique character of settled communities surrounded by a working landscape. According to Elizabeth Humstone, a member of the Burlington Planning Commission and Associate Director of the Vermont Forum on Sprawl, although the state is small, it has always been able to assemble around issues like environmental quality, preserving the landscape and maintaining their quality of life. Since the 1960's, there has been a committed planning effort by the state to maintain its unique character and a concerted effort to distinguish Vermont from other states.

In addition to state efforts to plan for the future while preserving its heritage, Burlington has been proactive over the last ten years to become a 'sustainable city.' The city has a strong history of an activist local government starting in the 1960's when they elected a third party candidate, Bernie Sanders for Mayor. Since then, a member of the Progressive Party has held the mayoral seat. Local government actions reflect the city's culture: proud of its tightly knit community, principled ecological approach, commitment to social justice, and village like town.

In recent years, Burlington, Chittenden County and the State have seen sprawl rear its ugly head as leapfrogging developments now dot the landscape where farms once did. Burlington and Chittenden County are heralded for their concerted effort to fight the ever-increasing amount of big box retail stores and strip commercial development. Burlington continues to support the effort of surrounding cities to prevent the proliferation of big box development. Nonetheless, big box came and strip development characterizes most of the commercial land in Burlington that lies outside

downtown. This development is a typical one-story commercial block set back about 100 feet from the street with parking in front.

Burlingtonians are prideful of its progressive dedication to realize a community vision. The first formal comprehensive land use plan was adopted in 1947, which codified many of the zoning ordinances established by the Municipal Planning Commission formed in 1925. Not until the post-war years, and effectively the 1960's, did a pattern of development emerge which continues to influence the city and surrounding towns. Burlington and adjacent areas were primarily industrial cities, susceptible to waves of opening and closings of large employers. To combat these trends, the Greater Burlington Industrial Corporation was formed. This placed employment needs in a regional context and was established to draw industry to "new facilities both within and outside the city" (UVM Historic Preservation Program, 103). As a result, some industries located in and outside of Burlington, most notably IBM in nearby Essex Junction. After 1950, the county's population dramatically increased. Burlington's population grew by 11%, and the surrounding towns saw an even greater increase in population (University of Vermont Historic Preservation Program [UVM HPP], 103).

Just as suburban development surged following WWII in most parts of the country, Burlington's downtown steadily declined, as development on the periphery increased. Historic buildings in need of investment and attention experienced neglect. Most attention was paid to development on the fringes in response to large-scale industry like that of IBM. As a result, lack of investment in the urban core presented a great challenge to the city. The principal revitalization strategy in the United States at the time was urban renewal. Popular in the 1950's and 60's, urban renewal was a federal policy mechanism that provided funds for cities to acquire land through eminent domain, raze 'slums,' and assemble it for sale to private developers. In retrospect, the urban renewal policy was blamed for destroying communities and eradicating the physical memory of cities. Burlington too, chose this coarse approach to deal with a decaying downtown. "A municipal study even concluded that to pursue a course of inaction with respect to the center city housing was 'to invite openly the urban cancers of congestion, dilapidation, and obsolescence' (Center City Study, 1959). The course of action taken to solve this problem would be as sweeping as the statement defining it" (UVM HPP, 104).

In 1964 Burlington conceived an urban renewal plan to bring about large-scale commercial development in the southern portion of downtown, approximately three blocks from the waterfront. At the time, planners' view of this redevelopment is summed up in a single statement made in the 1956 City Center Study: "it will be in the best interest of the city if action is taken to eliminate Center City housing. As this is accomplished, land values will increase and much of the city's substandard housing will vanish" (qtd.

in UVM HPP, 104). Although much of that statement did not hold true, the last word did come to fruition. Twenty-seven acres were reduced to a large swath of vacant land as seen in Figure 2. Numerous architecturally significant nineteenth century buildings were razed, street corridors were abruptly blocked, neighborhoods were eliminated, and the downtown's



Figure 2 Razed land in Downtown, Burlington.

Source: UVM HPP, 104.

historic context was altered; yet property values did not increase. The result was a haphazard placement of buildings surrounded by plots of vacant land. In place of the 'substandard housing' came a parking garage, a new hotel, office buildings, a new church and an underground mall.

During the twenty years following urban renewal in Burlington, the city's vision, economic development policies, and planning models dramatically shifted. Although an urban renewal plan was implemented, later in the 1970's the city began a holistic planning effort to preserve neighborhood character, galvanize community, and embrace diversity. Eradicating neighborhoods can be very detrimental and irresponsible on many levels. The ease at which an urban renewal strategy can create a blank slate of land in the heart of a city is very appealing, but this technocratic approach yielded grave consequences as many cities eventually learned.

Burlington too did learn its lesson. City officials and citizens recognized what they had lost and the planning process that led to it. This lesson was reflected in the adoption of the 1973 Zoning Ordinance. While the state witnessed development patterns typical of suburban sprawl in

Vermont, Burlington did as well, but on a local level. They experienced decline in the urban core, suburban development reducing open space, and neighborhoods being built without character. To remedy the situation, the city began to explore appropriate densities for ‘a city of neighborhoods.’

“The 1970 supplement to the city plan bewailed the low density of 46% of the city as inefficient for the delivery of municipal services. It warned that unless greater densities were encouraged through zoning changes, uninterrupted urban sprawl would result in a homogenous community dependent on the car. Subsequently the ceiling on residential density within some sections of the city was raised as high as R-75, permitting seventy-five dwellings to be constructed on a single acre” (UVM HPP, 105).

This was quite a density increase and citizens did feel that a change in density was needed, but perhaps not the invariable solution to revitalize Burlington. The 1978 Municipal Development Plan adopted that sentiment and noted the uniqueness of its neighborhoods was something to be celebrated. In addition, historic places and open space were amenities to be preserved to ensure a high quality of life for citizens.

“Realizing that both density and diversity could be ensured by careful planning of additional townhouses and apartments, the city revised the zoning regulations to allow for a maximum of forty units per acre. The 1978 revised city plan states the new understanding and intentions forcefully: ...to preserve existing neighborhoods and encourage the formation of more cohesive neighborhoods by protecting them from undue concentrations of population, crowded housing sites, encroaching non-neighborhood type uses, the demolition of neighborhood landmarks, and the loss of peace, quiet, privacy and reasonable way of life” (UVM HPP, 105).

Appropriately, the language is in stark opposition to the urban renewal strategy. They begin to get at the crux of a vexing question Burlington still asks today: how do you maintain a certain quality of life and preserve the uniqueness of neighborhoods while continuing to grow? Can population growth and a city of neighborhoods be compatible? In terms of density, there seemed to be an understanding that growth connotes increased density and an apprehension to completely embrace it.

Public sentiment in the 1970’s, along with actions by city officials, reflected a move towards more holistic planning and a real commitment to a citywide vision. This vision was cemented through long-range planning in the early 1990’s. In 1991 and again in 1996, Burlington completed a Municipal Development Plan based on self-defined principles of “sustainability.” Though the vision of sustainability arose out of a long-standing effort by a community that recognizes the

consequences of sprawl and advocates for the preservation of a village-like environment, the impetus for the Municipal Development Plan can be tied to state regulation and legislation.

2.4 Statewide Land-Use Policy and Review: Act 200 & Act 250

Passed in 1973, the Vermont Municipal and Regional Planning and Development Act mandated that cities revise their Municipal Development Plan every five years, however it was not until 1988 that the state required, through Act 200, each municipality to devise local plans that remain consistent with state and regional land-use goals and objectives. Every State bestows upon its cities the power to govern zoning and subdivision policy and regulation at the local level. Only 15 states mandate that their Cities prescribe how they choose to grow through periodic comprehensive planning documents and requirements that all zoning and subdivision decisions must be in accordance with that document (United States General Accounting Office [US GAO], 96). Some states mandate that all city plans should contain consideration of state, regional and local entities. Vermont is one of 10 states to adopt laws at the state level, which govern land-use and development decisions to manage growth regionally, locally and statewide (US GAO, 96).

Act 200 was a response to public concern over sprawl. The legislation includes twelve goals that each Municipal Development Plan and Regional Plan is required to consider when devising local and regional plans. Although the goals are not overtly specific, they do provide a framework through which new development and long range comprehensive planning should be approached. For example, goal one is “to plan development so as to maintain the historic settlement pattern of compact village and urban centers separated by rural countryside” (qtd. in *Exploring Sprawl*, Number 4, 1). Under this goal, three subsections encourage the expansion of infrastructure commensurate with planned growth patterns, residential development in community centers, economic growth in designated centers, and discourages strip development. Other primary goals address issues such as a diverse housing stock, land conservation, public facilities and infrastructure investment to meet future needs, and agricultural and forest needs. Arguably these goals are intended to move the state toward a collection of sustainable regions and communities. Ideally, if each municipality is guided by this rubric, then collectively, growth will occur responsibly.

While Act 200 addresses local comprehensive planning under a statewide framework, Vermont's Act 250 mandates a review and permitting process for current development. Passed in 1970, Act 250 was a tough response to rapidly growing leapfrog development. The state was facing an onslaught of out of town big box developers. In the early 1960's Republican Governor Dean Davis was mindful of the massive amount of second home development occurring in the southern part of the state. He flew over southern Vermont and viewed homes spread out into steep areas. Additionally, he saw that roads built on steep slopes were causing erosion and sewage overflow; thus he concluded that the current infrastructure was not adequate to service the amount of new development.

Governor Davis was a business friendly governor who recognized what was most important to the States economy. According to Elizabeth Humstone, Associate Director of the Vermont Forum on Sprawl, Governor Davis' argument was that the State is a good place to come to, but if this development continued, its natural splendor would deteriorate. The Vermont legislature formerly stated in 1969 that Act 250 was crucial "to regulate and control the utilization and usages of lands and the environment to insure that, hereafter, the only usages which will be permitted are not unduly detrimental to the environment, will promote the general welfare through orderly growth and development and are suitable to the demands and needs of the people of the state" (Vermont Heritage Network, par. 1). While Governor Davis was instrumental in structuring Act 250, Governor Phillip Hoff, the first democrat to elected governor in many years, signed it into law in 1970.

Act 250 is essentially an environmental review process similar in concept to California's state environmental review act, but is administratively different. Vermont's law is intended to prevent large-scale commercial development and haphazard residential development, and to mitigate the negative impacts of harmful development [by requiring a permit]. An Act 250 permit is required if the project generally involves any of the following:

- Commercial or industrial construction on more than one acre of land (or on more than ten acres of land if the municipality has permanent zoning and subdivision laws);
- Construction of more than ten housing units within a radius of five miles;
- Subdivision of land into ten or more lots;

- Construction of a road (incidental to the sale or lease of land) if the road provides access to more than five lots or is longer than 800 feet;
- Construction by the state or local government if the project involves more than ten acres;
- Substantial changes or additions to existing developments, and/or;
- Construction above 2,500 feet in elevation (Vermont Heritage Network).

These projects are subject to both approvals by the municipality and by one of the nine regional Environmental District Commissions. Each project must satisfy the ten criteria established by the state, which require that the development or subdivision:

- Will not result in undue water pollution or air pollution.
- Will have sufficient water supply.
- Will not cause an unreasonable burden on an existing water supply.
- Will not cause unreasonable soil erosion or runoff.
- Will not cause unreasonable traffic congestion.
- Will not cause an unreasonable burden on educational services.
- Will not cause an unreasonable burden on other municipal services (fire, police, water, roads).
- Will not have an undue adverse affect on scenic beauty, aesthetics, historic sites, or rare and irreplaceable natural areas; and will not destroy necessary wildlife habitat or any endangered species.
- Will conform to the capability and development plan, including, for instance, limiting development on primary agricultural soils, using the best available technology for energy efficiency, and using cluster planning in rural growth areas.
- Will conform to local and regional plans or capital programs.
(Vermont Heritage Network)

In summary, any project or subdivision that involves any of the aforementioned thresholds in project scope must obtain an Act 250 permit. An applicant applies for the permit after receiving approval from the local government review body. Act 200, Act 250, existing local zoning law, and municipal development plans are all interconnected with respect to comprehensive planning and consistency. Act 200 requires that local plans remain consistent with regional plans and state goals,

while Act 250 requires that projects remain consistent with municipal plans. Therefore, this process is *intended* to ensure that all projects adhere to state goals and objectives. One might argue this process threatens local autonomy, and some property rights activists do, but the goals are broad in scope and municipal plans must address the statewide goals, which quite accurately reflect public sentiment about sprawl.

2.5 Defining a Vision, Goals & Objectives through an Inclusive Public Process

The Role of the Citizen

A strategy to curb sprawl by encouraging more compact mixed-use development is defined by several terms. For example, some describe this effort as smart growth, some as growth management, and perhaps all, whether or not referring to those terms, entitle this effort ‘sustainable development.’ Sustainability is an ambiguous term used to describe a cornucopia of idealistic visions, but in most cases it represents an ongoing effort to reduce congestion, live more environmentally sensitive, enhance community, and basically, as the World Commission on Environment and Development defined it in 1987, “meet(s) the needs of the present without compromising the ability of future generations to meet their own needs” (qtd. in Beatley and Manning, 4).

Virtually no community on this earth currently achieves sustainability, and the cultures or societies that have are rapidly diminishing. This concept means that all outputs of production and daily life produce zero loss of natural resources, waste is continually recycled with no energy loss, and where equity is the norm and personal responsibility is part of the moral fabric. Suffice to say that no places like this effectively exist in the United States because a capitalistic system is based on consumption and growth with finite resources. *However*, that does not preclude a vision of better communities, nor does it prohibit citizens from working towards preserving the natural environment and enhancing community. Moreover, people do; citizens at many scales work diligently within a capitalist system to improve the quality of life and that of the natural environment. This sense of responsibility is essential for entire populations to successfully alter patterns of development and social constructs.

The idea and practice of personal responsibility rests in a basic understanding of cause and effect, that ones own actions will affect someone else. Admittedly this is rather simplistic, but it speaks to the root of unchecked outward development and a society of overconsumption where people are so removed from the effect of their actions, they fail to comprehend what those impacts might be. It follows then, that a well-informed and empowered citizenry is an essential component of more harmonious, peaceful, and balanced ecosystems. Although problems that appear physical in nature, like low-density development, which might suggest technocratic solutions, it is a citizenry committed to a preventative, delicate understanding of the impacts of major development or policy that is required.

David Orr argues that one component of ecological sustainability “has to do with the role of the citizen in the creation of a sustainable future...People in the modern world have become increasingly passive in their roles as consumers and employees. Sustainability in the postmodern world will rest on different foundations that require an active, competent citizenry. Lewis Mumford, writing in 1938, described this task, or what he called ‘regional development,’ in these words:” (Orr, 30)

“We must create in every region people who will be accustomed, from school onward, to humanist attitudes, co-operative methods, rational controls. These people will know in detail where they live and how they live: they will be united by a common feeling for their landscape, their literature and language, their local ways, and out of their own self-respect they will have a sympathetic understanding with other regions and different local peculiarities”(qtd. in Orr, 30).

Absent this approach, spatial development patterns continue to sprawl without consideration of their impacts to communities at every scale. The lack of public input, concern and action against unchecked development patterns allows institutions to function myopically. There are places working within an inclusive and active public participation process towards a more sustainable future. Burlington is one such place.

Democratic Participation: Determining the Vision

Burlington has an active citizenry; in essence it drives social policy, shape the public realm and the urban form, and guides the vision for the city. Democratic participation is very high in Burlington because well established community and social capital networks influence public debate. The participation process is cyclical in the way it operates to determine both the shape and quality of the physical environment and social policy. Essentially, the city greatly encourages public participation through inclusive forums that address long-term planning, a common city vision, and current policy and development projects. Figure 3 illustrates this inclusive, cyclical process.

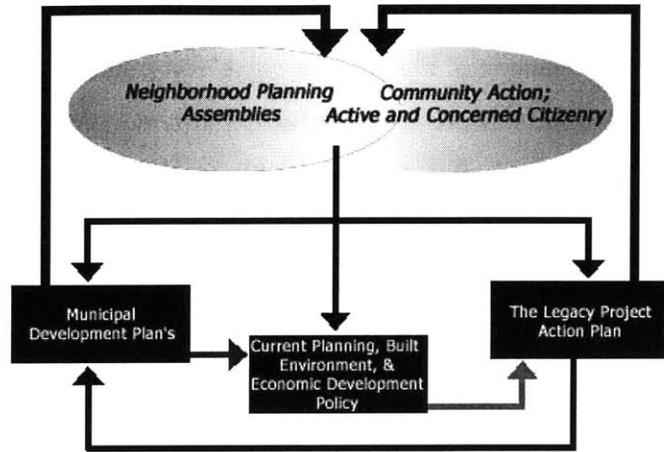


Figure 3 A diagram representing how the city engages residents. Subsequently, the role citizens play in determining policy and land-use decisions.

In the 1980's, the central focus of the local government administration, lead by the socialist Mayor Bernie Sanders, was economic development. To encourage a constructive public participation process Neighborhood Planning Assemblies (NPAs) were established in each of Burlington's seven wards. They work as advocacy groups and encourage public participation in city government. NPAs shape public policy in Burlington in the form of resolutions, which are distributed to city officials. In addition, NPAs elect representatives to sit on the Community Development Block Grant advisory board, thus influencing the allocation of federal funds. (City of Burlington Community & Economic Development Office, par. 1-3)

Burlingtonians influence both current development patterns and long-term vision and policy through interest and hard work to draft each Municipal Development Plan (MDP). Since the MDP is a guiding document on which current land-use and development decisions are based, citizens shape its course through their involvement. While MDPs are mandated by the state, the Legacy Project is not. The Legacy Project is an ongoing effort by residents, guided by a steering committee, to define the vision and actions for the future of the city. Further, the 2001 Draft Municipal

Development Plan clearly states that the Legacy Project will guide MDPs in the future. The Legacy Project is a living process that will guide each MDP every five years. The Legacy Project Action Plan contains a list of indicators for issues in Burlington that will be constantly measured to determine what issues need further attention and what new issues require examination.

With overwhelming public support and participation, Burlington's mission is to become a 'sustainable city.' Both the MDP and Legacy Project propagate this mission. Since 1973, Burlington has completed a state mandated Municipal Development Plan (MDP) every five years. The MDP is intended to state a general vision for the city as well as provide a set of action items and policy proposals for issues ranging from the built environment to public facilities. The Legacy Project brought people together from all parts of the city to build a common vision. As a result an action plan was completed in June 2000 to map out Burlington's direction as it attempts to deal with a broad range of issues toward a common goal. Peter Clavelle, acting as both mayor of Burlington and Chairman of the Institute for Sustainable Communities, developed this idea as a process and roadmap for the future.

Municipal Development Plans

Each Municipal Development Plan acts as a guide for policy and regulation in the city. Prescriptive measures are introduced to address pressing issues and identify areas for further study and examination. As stated in the 1996 Municipal Development Plan, the MDP "...outlines goals and objectives for the future and is the principal guide directing land use policy and decision making. It defines the policies, programs and specific actions necessary to attain these objectives" (City of Burlington, 1996, 1)

The 1991 plan was a complete rewrite of previous plans and an effort to galvanize the community behind common goals and an implementation agenda. City staff spent three years holding public meetings, conducting research, and listening to the public while drafting the plan. Burlington takes great pride in the fact that the 1991 plan was by and large written by its residents. Although the word sustainability was never used explicitly, the vision statement clearly reflected a move in that direction. The five page vision statement described the vision for the city under twelve categories: Citizen Participation, Growth and Development, Human Scale, Neighborhoods, Vital

Downtown, The Natural Environment, The Built Environment, Housing, Institutions, The Region, Transportation, Economic Development, and Burlington Waterfronts (City of Burlington, 1991, 5-7). The statement reads like a utopian treatise: it speaks of a city with a high quality life full of distinctive neighborhoods, active citizens, and a cherished natural environment, a place where equity, empathy, and a sense of place are valued.

Five years later, Burlington produced the 1996 Municipal Development Plan. This plan was a “fine tuning” of the 1991 plan and not a revision. It was significant because it articulated their vision of sustainability. The 1996 plan states explicitly that it is based on self-defined principles of sustainability. Burlington’s approach toward sustainability is evident in their continued attempts to define themselves by their wishes in these comprehensive plans. Since 1973, these plans have recorded the evolution of community sentiment.

The 1996 plan used sustainability as the stated philosophy to guide the future development of Burlington. They claim the four elements of a “sustainable community” are ecological integrity, economic security, empowerment and responsibility, and social well-being. In addition, they provide the following seven principles that must guide the city’s future development in order to become a sustainable community:

- Support and strengthen our neighborhoods
- Concentrate development within growth centers
- Utilize mixed-use development and multi-use structures
- Lessen the dependence on the automobile
- Respect the city’s history and natural systems
- Support long-term solutions
- Promote cooperation through working partnerships (City of Burlington, 1996, 4-5)

The Legacy Project

Published in June 2000, the Burlington Legacy Project Action Plan was a product of a one-year process between hundreds of members of the Burlington community. Mayor Clavelle appointed a steering committee to oversee the public involvement campaign and to prepare the action plan. Members of the steering committee included “leaders from the business, low-income, environment, academic, youth, and social service communities” (Legacy Project Action Plan, 1). Funding for the project came from a U.S. EPA Sustainable Development Challenge Grant, the Jane

B. Cook 1992 Charitable Trust, the Institute for Sustainable Communities, and the City of Burlington.

The community process was extensive and methodical: it began with surveys and ended with a final public comment meeting at City Hall, aptly titled “Summit on the City’s Future.” The process included focus groups at the neighborhood level, followed by ones centered round specific issues identified by the community. More than 60 community-based organizations gave input. In addition, specific youth oriented focus groups were convened. It was important to both the mayor, citizens and the steering committee that the youth of Burlington be engaged in this process – after all sustainability is about a multigenerational effort that transcends the present to protect the future. In a letter to residents of Burlington introducing the Action Plan, Mayor Clavelle stressed the importance of citizen involvement:

“...Working collaboratively with unity of purpose, we will achieve the healthy future detailed in this plan through the strong, active involvement of all the city’s residents in governance and day-to-day decision making. People from all sectors of our community must continue to strive together to make our collective vision a reality” (qtd. in Legacy Project Action Plan, 1)

In the end, residents decided on five general goals and objectives:

- “Maintaining Burlington as a regional population, government, cultural, and economic center with livable-wage jobs, full employment, social supports, and housing that matches job growth and family incomes
- Improving quality of life in neighborhoods
- Increasing participation in community decision-making
- Providing youth with high quality education and social supports, and lifelong learning opportunities for all
- Preserving environmental health” (Legacy Project Action Plan, 7)

The Legacy Project will continue to seek involvement from residents. Based on action plan items indicators will be developed to measure progress and gauge the effectiveness of policy and programs. These tools will feed into the current planning process and the MDP planning process over the coming years.

It can be inferred by legislation like Act 250 and 200 that all Vermonters value a physical development pattern made up of village centers surrounded by a working landscape. However, it is

not clear to what extent this sentiment influences Burlingtonians or whether there is a unique culture in Burlington. What is clear is that Burlington is the most progressive of all Vermont cities with respect to social justice, environmental protection, energy efficiency, and economic development. Perhaps it relates to Burlington as the most urbane city in the state.

Although Burlington is the largest city in the state, it is but one city, thus its representation at the state level is equal in influence to that of a rural community. To Vermonters outside of Burlington and even the county, the city symbolizes the negatives of a major city, urban decay – homelessness, drugs, crime, traffic, and noise. Burlington must deal with very urban problems, but because they possess a strong environmental ethic, the culture influences the process and approach to deal with these problems. Therefore, the approach is a sociological response to a different problem. One could attribute the reform type local government to its past and present progressive mayors, but those mayors were elected by a community open to progressive ideas.

2.6 Framing the Challenge

Burlington's vision for more compact mixed-use settlements may appear contrary to current patterns of growth and new development characterized by strip and continued suburban development. Since 1991, they have been committed to a growth center approach and each MDP identify specific opportunities for infill development as a mechanism for guiding the physical manifestation of growth.

While the vision for Burlington is clearly established, the vexing question still remains, how does Burlington, or any community, come to realize it? Obviously this is a difficult question with a complicated answer. It requires a narrowing the focus to smaller goals and objectives, which are translated into action through policy and programs. State goals and objectives as defined in both Act 200 and 250, the cities MDPs, and the Legacy Project all address numerous, equally important issues. Conceivably, to realize a sustainable future, these issues are non-severable; however, on a local level the transition toward more compact mixed-use settlements deserves special attention. Sprawl is a regional problem requiring that singular efforts to redirect growth must be part of a comprehensive and synergistic approach. A local effort to designate growth in certain centers of

one municipality is one component. Economic and population growth are fundamental to capitalism; therefore, it must go somewhere and be translated into urban form.

The negative impacts of sprawl were already presented in this paper and planners maintain that more compact development patterns are more economically sustainable. In addition, more compact development can increase the social capital of citizens by maintaining lower commuter times, preserving open space, providing proximal access to services and public facilities, and engendering ties to the community. A shift toward a more “traditional tight-knit fabric of urban living” can give rise to the quality of life Americans seem to be seeking (Porter, 147).

While there is statewide support for curbing sprawl in Vermont, Burlington too recognizes the impacts of sprawling suburban developments, large single-use developments, strip development and auto dependent growth. In a letter to residents introducing The Legacy Project Action Plan, Mayor Clavelle writes:

“...They have recognized the challenges that increasing suburban sprawl poses not only to the economic and social vitality of our city, but also to the environmental and social health of our entire region. ...At the same time as this plan calls for carefully planned growth, it recognizes that we cannot abandon our commitment to the very things that make Burlington a special place in which to live, work, and raise our families. It affirms that growth can only happen together with a firm commitment to preserving our city’s physical and natural environment, maintaining open space, and strengthening the integrity and quality of life in our neighborhoods and families” (qtd. in Legacy Project Action Plan, 1).

Through zoning ordinances, programs, and planning efforts Burlington has been active in establishing itself as a regional growth center both in terms of its economy and for an increased population. The city is taking steps with infrastructure investment as well as with new development and redevelopment. It is important to note that there is very little undeveloped land in Burlington. That is to say, the city is pretty well built-out given the voluntary constraints of protected open space and environmentally sensitive areas. While there are very few undeveloped parcels left, many underdeveloped parcels do exist and the challenge for the future of Burlington is how to maximize development in certain areas, while maintaining a desired quality of life.

3 Bringing About Sustainable Growth In Burlington

3.1 Preparing for Growth – Strategy to do it Responsibly

Burlington clearly has a vision of a city that embraces equity, environmental protection, historic preservation, and a sustained high quality of life. A dialogue is active in the city about the amount, type and the quality of growth that it wants to actualize. Although the amount of growth and investment is dependent on market forces to some degree, Burlington is committed to proactively applying holistic policies and programs in order to prepare for and attract it cautiously. In addition, these policies correspond with a smart growth approach to reduce common negative effects of sprawl-like policies or characteristics.

Inclusionary Zoning and the Provision of Affordable Housing

Low-density outward residential (suburban) development is emblematic of sprawl. Zoning is a tool that can contribute to this trend through the technique of large-lot zoning. Large-lot zoning entails zoning requirements that require very large minimum lot frontage. Where traditional subdivisions might provide 20-40 foot frontages, a large-lot might exhibit a minimum frontage of 100 feet, effectively spreading out the population density. These lots are affordable primarily by wealthier residents, an economic reality that can polarize a community. When communities adopt large minimum lot frontages as the dominant residential housing type it can preclude the amount of affordable housing, effectively excluding lower-income residents a practice commonly referred to as exclusionary zoning. Although it might be hard to prove that certain zoning regulations are intended to exclude particular races or classes, examining the diversity of the housing stock can verify it. Exclusionary zoning is illegal based on the federal Fair Housing Act (FHA). It prohibits zoning requirements intended to keep out certain people based on race. Large-lot zoning, which effectively excludes lower-income families, is often considered a discriminatory practice.

These zoning practices contribute to sprawl and more importantly, to an unsustainable and inequitable development pattern throughout the United States. Single use and large lot zoning

create low-density suburbs that require large upfront and operating costs for infrastructure. Also, these practices, whether intentional or not, are discriminatory and create communities that are not socially just or equitable, nor representative of the true composition of the United States population. Legally, communities are not required to be racially diverse, but they must offer an adequate supply of affordable housing. There is a widely held belief that affluence provides a freedom to flee less desirable land uses or decaying areas. However, the urban core often subsidizes the provision of new infrastructure to support suburban development. Zoning tools used in this way not only perpetuate sprawl in terms of physical form, but can also promote racial and class segregation.

In an effort to provide a mix of housing types, the city is extremely proactive in their approach to affordable housing. Through an inclusionary zoning ordinance, development bonuses, and the work of the Burlington Community Land Trust, the city has a framework in place to provide a proportional amount of affordable housing as the population grows. As defined in Article 14 of the Burlington Zoning Code, inclusionary zoning is a tool “to mitigate the impact of market rate housing construction on the limited supply of available land suitable for housing, thus preventing the city’s zoning ordinances which allow residential development from having the effect of excluding housing that meets the needs of all economic groups within the municipality.” A certain percentage of affordable units must be provided when a project creates five or more units of new construction or ten or more units through adaptive reuse or conversion from a nonresidential structure. In addition, there are various density and height bonuses awarded to projects that provide a certain percentage of affordable housing.

To complement municipal efforts, the Burlington Community Land Trust is a nationally recognized non-profit housing developer that provides housing to all of Chittenden County. The system presently includes 240 rental units, and 250 home ownership units, which are split between single-family homes and condominiums.

Land Conservation

Among the most detrimental effects of sprawl are loss of open space, land available for agriculture, and environmentally sensitive and significant lands. Vermont is thought to contain some of the most beautiful natural landscapes in the country. Vermonter’s cherish, especially those

in more urban areas, their natural environment and believe that open space is essential to a high quality of life. To this end, Burlington recently completed an Open Space Protection Plan. They take a comprehensive approach to open space conservation using three complimentary methods: *Conservation Education* to familiarize the public with natural areas and stress the importance of open space protection; *Proactive Conservation* to identify high priority open space and offer mechanisms to set aside the land; and *Future Planning and Improved Development Review* to integrate open space protection more concretely in the development review process and to prevent development from adversely impacting delicate ecosystems. (City of Burlington, 2001, II – 8-9)

The Plan defines a “vision for the future of Burlington’s landscape where natural areas, parklands, and greenbelts are physically integrated into the urban fabric to complement development with conservation – where natural and recreational systems play an essential role in enhancing environmental quality, economic prosperity and quality of life” (City of Burlington, 2001, II – 9). ‘Significant Natural Areas’ and ‘Urban Greenspaces’ are identified as two important types of open space for the enjoyment and social well being of the community. Open space protection is an effort to ensure that Burlingtonians will maintain a high quality natural environment while growing at the same time.

Infrastructure

Often times the provision of adequate infrastructure is overlooked when analyzing the obstacles to growth. Discussed here, infrastructure includes water supply, wastewater disposal and stormwater drainage (later in this chapter, infrastructure will refer to street improvements). Upgrades are often necessary to maintain infrastructure, which are costly in the long run because the tax base of a relatively low-density population cannot support it. Strictly looking at the cost of infrastructure for a new development, one would clearly choose to build where existing services are provided. From a developer’s perspective the initial cost of infrastructure is nominal because they are not required to fund long-term operations. From a city’s perspective, the costs of new infrastructure might be nominal, but the costs to maintain it are worrisome, especially in a low-density area. Burlington is consistent with their argument that they wish to concentrate development near existing infrastructure as a way to reduce unnecessary costs. When thinking about

adequate drinking water, wastewater disposal and drainage, two obvious questions arise – one of capacity and one of efficiency.

Burlington keenly recognizes the role infrastructure in their ability to grow sustainably. The present water supply, expanded in 1984 is abundant. Currently, the water system operates at less than one third of its total capacity. Due to its capacity, Burlington is considering selling water to neighboring communities. However, before they enter into any long-term agreements, they identify two issues that must be addressed, as explained in the 2001 Draft Municipal Development Plan.

“First will the city have the capacity necessary to accommodate future levels of growth, and secondly, how might the sale of Burlington’s excess capacity influence growth and development patterns within the region. Adjacent communities and water systems are encouraged to utilize Burlington’s excess capacity before building new treatment facilities, but only to the extent that it helps concentrate development within core growth areas. Burlington’s excess water capacity must not be used to contribute to suburban sprawl, but instead should be used to support a more concentrated development pattern” (City of Burlington, 2001, VII – 4-5).

The Municipal Wastewater Treatment system was updated in 1991. The system includes three treatment plants that service separate parts of the city. Therefore, when the city considers potential growth, it must be considered on a location-by-location basis with respect to the capacity of each separate treatment facility. The Main Treatment Facility was expanded as part of the upgrading in 1991 and it primarily serves the downtown. While the city claims that the system-wide expansion can service a population of 60,000 people, the Main Treatment Facility cannot service all that growth. This may be problematic considering the downtown is identified as the primary location for absorbing growth.

Summary

Burlington’s strategy for growth is holistic and comprehensive. Essentially, they intend to focus development in certain areas of the city that can accommodate growth, while protecting and enhancing the quality of open space to ensure a high quality of life. In addition, their calculated approach ensures that welcomed growth is thought of in accordance with preserving the existing quality of life for current residents and available to persons of all incomes, races and ethnicities.

3.2 Using the Growth Center Approach to Guide Development

Neighborhood Activity Center Concept

A sustainable city is characterized by compact mixed-use development planned to promote a pedestrian friendly environment with sufficient open space and within reasonable distance from public facilities and neighborhood services. From all the vision presented in this thesis thus far, it might seem reasonable to conclude that Burlington's specific efforts to implement sustainability were are reactionary responses to community concern. That is hardly the truth; rather residents are the driving force behind most decisions and policies that the city adopts. And such is the case with the Neighborhood Growth Center concept.

During the late 1980's residents of the New North End Neighborhood (in Ward 4, north of the Central Business District) expressed concern at Ward 4 Neighborhood Planning Assembly meetings that existing neighborhood open space would be threatened by growth. They asked a logical question, how could they "...protect the remaining open spaces in their neighborhood by directing growth to more appropriate locations, such as existing, underutilized commercial areas" (Burlington Department of Planning & Zoning [DPZ], 2). The concept 'Neighborhood Activity Center' (NAC) was termed at these meetings in the late 1980's. Following the initial concern, the concept was explored during several other public meetings outside the Ward 4, some even broadcast on local public access television.

Discussion briefly quieted while institutional changes occurred in the planning and economic development offices. In 1993 two things happened that revived the discussion. In October of that year, the Vermont Department of Housing and Community Affairs awarded a Municipal Planning Grant to the city "to study the NAC as a technique for managing future growth and development at the neighborhood level" (DPZ, 2). Even before this grant was awarded, an economic revitalization effort was in progress for the Old North End – a distressed neighborhood directly south of the New North End. Toward this effort, "an intensive strategic planning process was launched in March of 1994 to seek the federal 'enterprise community' designation for the New North End" (DPZ, 2). Thus a comprehensive planning and design process focused on a sustainable and livable community, began between citizens, local officials and non-governmental organizations.

Burlington first promulgated their strategy to concentrate growth appropriately in designated areas of the city in the 1991 Municipal Development Plan (MDP). The plan identifies specific opportunities for infill and higher density development as a mechanism for guiding growth. Most of these areas are within or surrounding the Downtown Central Business District and the Waterfront. Although the city would like to concentrate most of its business and residential development in these areas, NAC's were identified to use underutilized commercial districts located within residential neighborhoods as opportunities to apply a regional growth center concept at the neighborhood scale.

Resulting from the Ward 4 Neighborhood Planning Assembly's meetings, the 1991 MDP articulated opportunities for NAC's were located in commercial centers with large parking lots – centers that used land relatively inefficiently. Primarily, the redevelopment of these centers serve on-site residents and those from surrounding neighborhoods, in addition, to act as job generators. While the definition in the 1991 MDP was the first official articulation of the NAC, planning and urban design concepts put forth in the 1994 Neighborhood Activity Center Report explored the concept in much greater detail. Staff from the Burlington Department of Planning & Zoning with assistance from consultants Julie Campoli and Turner Brooks orchestrated the planning and design process. The result were a series of zoning recommendations, a more defined concept, and a conceptual urban design plan for two NAC's at two locations.

The concept was clearly evolving exhibited by the definition for the NAC in the 1996 MDP.

“The intent of the NAC is to take underutilized commercial areas within a residential area, and transform them into higher density, compact mixed-use settlements. These areas will typically include childcare centers, local banks, grocery stores, offices, pharmacies, small businesses and housing. NAC's are close to where people live and oriented to serving the neighborhood, thus lessening the need to drive for local errands and convenience shopping. These locations may also be particularly attractive as locations for community technology centers which provide support and resources to small businesses, and serve as remote office locations for larger businesses located elsewhere” (City of Burlington, 1996, I – 13)

Outlined in the plan are the general policy and programmatic mechanisms, first introduced in the 1994 NAC Report, that could be adopted to implement the goals and objectives explained above.

“The City will draw infill development into these areas through revised zoning that promotes neighborhood scale mixed uses, increased density, smaller setbacks, and height bonuses for shared and below ground

parking. Convenient access to transit, and bicycle and pedestrian routes, must also be provided. The Neighborhood Activity Report identified modifications to the existing infrastructure, access needs, streetscape amenities and strategies to protect the character of abutting neighborhoods” (City of Burlington, 1996, I – 13)

3.2.1 The Pilot Neighborhood Activity Centers

Initially, since the NAC concept was conceived by residents of the New North End, the discussion focused on one potential site in that area, namely the Ethan Allen Shopping Center located on the corner of North Avenue and Leddy Park Road. Since the city’s Community and Economic Development Office (CEDO) was devising a revitalization strategy for the Old North End, the planning and consultant design team welcomed the “opportunity to take a closer look at how the NAC concept could—or should—be applied to areas with dissimilar characteristics, such as an area characterized by large single parcels vs. many small parcels, a large proportion of ‘public’ land vs. almost none” (DPZ, 2). Further, as any good urban design approach does, performing a site assessment to recognize the unique conditions of the area is an appropriate beginning to capitalize on the opportunities and assets, while improving the weaknesses and constraints. This entailed taking a step back and defining the broad goal while tailoring the concept to meet the needs and existing conditions of each NAC.

The 1991 MDP identified three possible locations for NAC’s: the Ethan Allen Shopping Center in the New North End, the North Winooski Avenue/Riverside Avenue area in the Old North End, and the Shelburne Road Plaza in the South End. Ethan Allen Shopping Center and the Shelburne Road Plaza – identified as large commercial centers with vast parking – reflected the original intent as articulated in the 1991 MDP. Contrarily, the North Winooski Avenue/Riverside Avenue area was, and continues to be, characterized by many small parcels, deteriorating turn-of-the-century buildings interspersed with some contemporary structures. Because the discussion originated in the New North End and a planning process was in progress for the Old North End, the planning and consultant design team focused on just two of the three – Ethan Allen Shopping Center and the North Winooski Avenue/Riverside Avenue area.

For each NAC, a site assessment, conceptual plan and recommendations were completed with citizen involvement guided by the planning staff, while the design was essentially undertaken, after citizen input, by the design team of Julie Campoli and Turner Brooks.

Ethan Allen Shopping Center (EASC)

This NAC is located along North Avenue in the northern part of the City in the New North End. “The site has often been referred to as the Ethan Allen Shopping Center Area NAC because the EASC is a prominent element as an underutilized commercial location” (DPZ, 3). The study area also included the State Department of Motor Vehicles property adjacent to EASC to the north, Leddy Park abutting the EASC to the west, and both sides of North Avenue between Poirer Place and Leonard Street.

The study area is characterized by very large parcels, the largest being EASC and surrounded by low-density residential neighborhoods significant of post WWII suburban development. Leddy Park provides access to the beach and is a frequented recreational open space. At the time of the study, EASC was a deteriorating shopping plaza, built in 1954 with few subsequent improvements, characterized by one-story buildings set back from large amounts of parking that abut the street.

The site assessment identified poor vehicular and pedestrian circulation throughout the area. North Avenue is a four lane heavily traveled road and lacks both a continuity of streetscape design and a buffer between the high-speed traffic and the sidewalk – it makes for a very poor quality pedestrian street. In addition, they noted that ingress/egress for the shopping center was confusing especially for vehicles, but also for pedestrians and bicyclists. With respect to Leddy Park, they recognized that “...for those not familiar with the area there is little to suggest the presence (of the park). There are three informal entrances into Leddy Park through holes in the fence in the rear of the Ethan Allen Shopping Center. An area of dense, tall pines define the edge of the park along this boundary, which is a stark contrast to the adjacent parking lot of the EASC” (DPZ, 4).

A conceptual plan was devised for the EASC and included detailed recommendations for the street system, streetscape, parking, infill buildings, and multi-modal transportation. This plan was accompanied by a site plan and perspective drawings for the reconfiguration and redevelopment of EASC. Figures one and two contrast the existing site configuration with the conceptual plan. To improve visibility and ease of circulation, a main entrance to the center was suggested on North Avenue characterized with a formal gateway between two buildings at the street edge. Furthermore, placing several mixed-use, multi-story buildings at the street edge was identified as a critical

component. An internal street network was introduced to increase visibility and access to the park as well as within the center for vehicles and especially pedestrians and bicyclists. A comprehensive streetscape plan was suggested as an essential component to create a pedestrian center with elements including: street trees, curbs, sidewalks, lighting, benches, trash receptacles, and cross walks.

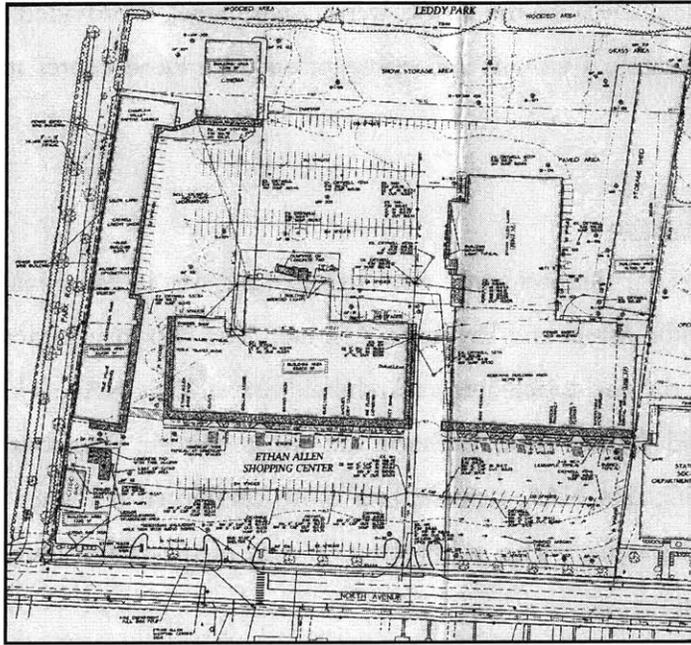
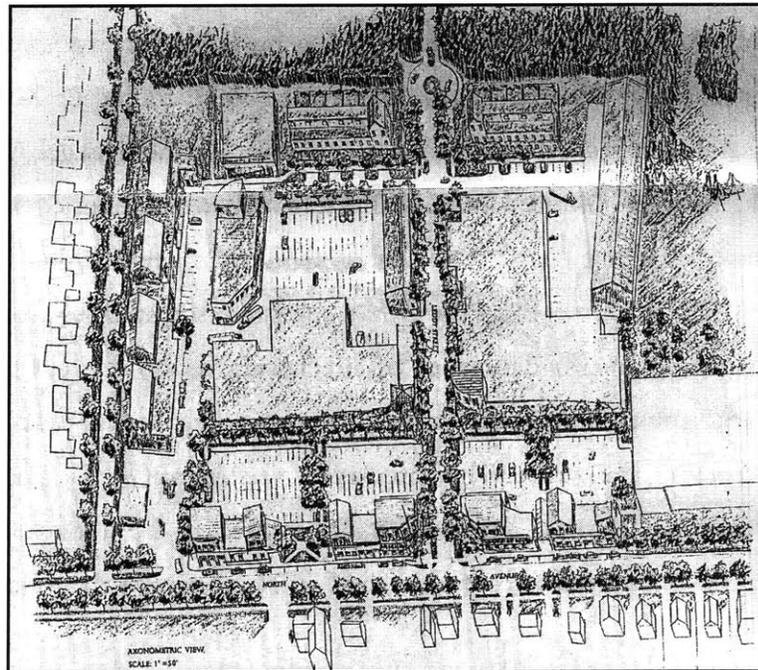


Figure 4 EASC Existing site configuration. Source: COA 00-031 project file.

Figure 5 EASC Conceptual Plan, perspective drawing. Source: 1994 NAC Report



The most notable recommendation was to increase commercial floor area and other uses in multi-story buildings to activate the barren neighborhood center. The 1991 MDP declared that NAC's, EASC being one, should be designated areas for growth, meaning an increase in square footage and allowing for greater density. Because the EASC was a large parcel, it provided a unique opportunity to create, almost from scratch, a vibrant and compact neighborhood center to service the existing neighborhood and the city.

North Winooski Avenue/Riverside Avenue

Although the title for this NAC denotes only two streets, the site is essentially North Winooski Avenue between North Union Street and Riverside Avenue. The two major intersections are at Riverside Avenue and between the two-block area at Archibald Street. This NAC is located in the northeastern portion of the Old North End, perhaps the most historic neighborhood in Burlington. In contrast to the EASC, this NAC represents a more traditional compact land-use pattern, characterized by many small parcels. The architecture is turn-of-the-century and several buildings, old and new are in disrepair.

The area is zoned General Commercial surrounded by a relatively dense residential neighborhood. There are some existing businesses in the area, but according to David White, a Comprehensive Planner in the Department of Planning & Zoning, "the area is characterized by more non-profit uses, there is a senior center, Vermont Legal Aid and the Food Shelf." The lower block, between North Union and Archibald, was identified in this site assessment as having a consistent building edge. While the upper block, from Archibald to Riverside, does not.

The report points out that the streetscape lacks continuity and a pedestrian friendly atmosphere due to a deficiency of street trees, a non-existent green belt buffer between the street and the sidewalk, expanses of asphalt, intruding utility poles along the street, and utility lines crisscrossing the street. The circulation was identified as poor because of busy and confusing intersections. North Winooski is determined to be a thoroughfare. It continues to be widely accepted that the infrastructure in the Old North End is the most deteriorated in the city.

Julie Campoli, one of the designers of the conceptual plan said they were “looking for ways to increase the pedestrian quality of the street by creating a bigger greenbelt, planting street trees, and putting in neck downs.” Other notable elements of the plan include reinforcing the building wall, making mid-block connections, burying utility lines, interior block pedestrian corridors, and reducing the street width. The key element of the plan distinguishes the intersection of North Winooski and Riverside as a gateway to the city entering from the town of Winooski. They explain, “(the intersection) should present more of a welcoming and attractive face than it currently does” (DPZ, 10). Part of the urban design solution includes the use of a roundabouts and tree planting to reduce traffic and enhance the visual quality of the street intersections, as seen below in Figure three.

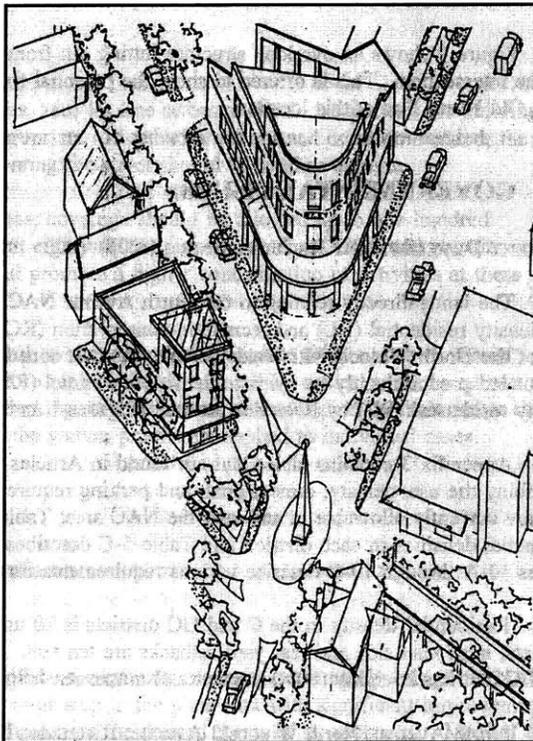


Figure 6 Conceptual design for a Roundabout at the intersection of Riverside and N. Winooski as possible design solution. Source: 1994 NAC Report, 11.

North Street

Although the 1994 NAC Report produced detailed site assessments and conceptual plans for two NAC's, the concept has expanded to other parts of the city. Each MDP completed after the 1994 Report, identifies more NAC's and according to David White of the Department of Planning & Zoning, the North Street Revitalization Plan essentially applies the same elements as the NAC

concept. North Street is located just southwest of the North Winooski Avenue/Riverside Avenue NAC in the Old North End. North Street is the 'main street' of the Old North End neighborhood. Beginning in the 1830's, till the turn of the century, it emerged as a thriving commercial center. With close proximity to downtown and the waterfront, its success fed off the industrial boom on Lake Champlain. Most notably, the Old North End has traditionally been the home of the city's immigrant and working class population, which remains true today.

Returning North Street's role to a prominent neighborhood commercial center was a significant aspect of the economic revitalization strategy for the Old North End. Initiated in 1994, the city undertook an effort to get the district designated a federal enterprise community and was successful. In 1997 Mayor Clavelle announced that the revitalization of North Street was one of his "highest priorities."

Similar to the plans completed for the first NAC's, this plan included a site assessment and recommendations. However, it was more detailed and contained very specific improvements, a prioritized list of projects, development objectives and recommendations, and a rather detailed North Street conceptual plan. North Street is emblematic of a NAC – a commercial strip located in the heart of a dense residential neighborhood and once a prominent neighborhood center. Like most planning efforts in Burlington, this too resulted from residents' concern that the neighborhood was distressed and wanted to proactively deal with growth. An article in the Burlington Free Press published in 1998 stated, "One of the best indicators of a community's vibrancy is the willingness of its residents to work for improvement. By that measure, the neighborhoods along Burlington's North Street are alive and well, with people committed to restoring the areas former strengths" (qtd. in The Mayor's North Street Task Force, 30).

While conceptual plans and recommendations were the extent of the work completed in 1994 for the initial NAC's, this plan included a strategic plan and an implementation plan. The basic recommendations were similar to those offered in the NAC report: to introduce traffic calming devices, such as bump outs; relocate utilities lines underneath the sidewalk; plant shade trees; install historic street lighting; and effectively alter the zoning code to allow typical neighborhood uses, which were conditional at the time, to be permitted.

3.2.2 Implementation Mechanisms

Even after the report and conceptual designs were complete, the question still remained about the best approach to implement the NAC concept. The report recommended a few implementation tools and stressed that each NAC required different elements. Furthermore, whether there were general elements that applied to all NAC's as compared to elements that were site specific. This question would determine what zoning changes, if any, needed to be analyzed and/or adopted by the Planning Commission. Several design elements and land uses were identified as applicable to all NAC's, which are characteristic of any successful compact mixed-use neighborhood center; listed below, they include:

- A solid street edge accomplished by bringing buildings out to the street
- Landscaping along the street with street trees to engender a higher quality pedestrian friendly environment
- Breaking up the parking, essentially hiding it in the back or interspersing it so it does not dominate the visual plane
- A mix of uses – public facilities, commercial (both service and retail), office and residential
- Architectural style reflective of the city and the neighborhood's history
 - A mix of styles to enhance the visual plane and to establish identity
- Preserving existing assets, such as significant buildings or open space
- Increasing access and improving circulation for pedestrians, cyclists, and motorists
 - Traffic calming devices such as bump outs, roundabouts, and parking bays
- Preserving or expanding view corridors

The conceptual plan went far to discover which implementation measures are necessary for different places, with their own intricacies, to become successful neighborhood centers. One need only to look at the reports' different topic headings for the Site Assessment, to understand that solutions must be site specific. For example, whereas the site assessment for the Ethan Allen Shopping Center analyzed *Vehicular Movements* and *Pedestrian Movements*, these topics were not used

for the North Winooski Avenue/Riverside Avenue area; instead, *Riverside Avenue Intersection* and *Upper Block* were used as topic headings. Although both deal with circulation, due to the different nature of both places the analysis could not fit a universal checklist. Therefore, any regulatory changes had to be flexible if adopted widespread, but also the probability remained that some changes might have to occur on a place-by-place basis.

The report and design effort was very effective in raising awareness to the design elements necessary to create pedestrian friendly, vibrant, and signature neighborhood centers. 'Neighborhood Activity Center,' arguably not a very sexy moniker, is now part of the planning vernacular in Burlington. The type of development projects that occur in designated Neighborhood Activity Centers are strongly encouraged to incorporate the elements outlined above to the extent they apply to each site. The report offered several recommendations to implement the concept and achieve desired elements through certain improvements and regulations. Three bylaw amendments were recommended in the report addressing setbacks, lot coverage and parking. Below are the three recommendations as they appeared in the text.

"Setbacks. For both NAC areas, zero lot line setbacks should be allowed for buildings to front right up to a sidewalk if appropriate. If setbacks are enacted or recommended, the historical pattern of the buildings fronting the street should be used as a guide" (DPZ, 13).

Zero lot line setbacks are intended to bring buildings out to the street to stimulate visual continuity with a street edge.

"Coverage. For both NAC areas, coverage should be allowed up to one hundred (100%) percent rather than the current eighty (80%) percent standard. This will permit increased flexibility in site design and promote a higher concentration of activities at these centers" (DPZ, 13).

An increase in lot coverage will allow for an increase in total buildable square footage and bring about a greater sense of activity through urbanity.

"Parking. New parking standards which specifically provide for dual use or shared parking for NAC's must be developed to replace the current use by use calculations currently contained in the zoning ordinance. Parking standards must be established up front rather than the current practice of depending on the waiver provisions applied to individual cases" (DPZ, 13).

These centers are intended to become multi-purpose destinations, located near public transit, and within walking distance from residential neighborhoods; therefore, parking requirements should

reflect the actual need. Because these centers are relatively unconventional due to the multi-use nature, the parking calculation should reflect that, rather than basing the number of required spaces on single uses.

Regulatory recommendations were an effort to legislate the use and type of physical development, but the authors were clear about the need for public investment in infrastructure. The strategy for success of NAC's is to make significant improvements to the basic physical infrastructure to accommodate and incite more private development. A detailed list of improvements were laid out for each NAC in the report, but generally, these improvements included: planting shade trees, burying utility lines, and reconfiguring streets with traffic calming devices such as bump outs. It is an incentive based strategy – the public sector creates value in the quality of the street and the private sector capitalizes on this value resulting in a neighborhood center with greater vitality.

3.2.3 Analysis of the Neighborhood Activity Center's to Date:

How the Concept Transpired

An obvious analytical step would be to complete a general assessment at how these recommendations were received and what, if any action was taken. Further, observe how the initial NAC's evolved over time and to the extent the concept may have evolved. Before moving toward this analysis, I want to be clear that cities and neighborhoods evolve over various lengths of time – incrementally. Therefore, the following assessment is a static look at a rather dynamic process. A glance at what transpired, the impact of the regulatory changes and infrastructure investment will be looked at threefold: first, an assessment of current zoning requirements relating to the recommendations; second, an assessment of the current status of infrastructure in NAC's; and third, a look at three development projects located in NAC's to provide a glimpse of how these are unfolding as neighborhood centers.

Zoning

While North Street was never labeled a Neighborhood Activity Center, it is identified as a NAC in the 2001 Draft Municipal Development Plan along with approximately six others. David

White, from the Department of Planning & Zoning, explained that there are several other areas in the city where residential neighborhoods lack basic commercial services and are forced to drive for these services. The NAC concept is being applied at many scales and intended to absorb scaleable degrees of growth and to placate proportional amounts of the negative impacts of sprawl. For example, larger NAC's, like the EASC, are opportunities for significant development to include housing, retail, office and even generate some jobs. Whereas a place like North Street can be an incubator for small business and serve as a neighborhood commercial center to existing local residents.

Currently, all NAC's, including North Street and Shelburne Plaza are commercial property zoned Commercial, General Commercial, or Neighborhood Commercial. A mixture of uses is identified as a critical element to a vibrant neighborhood center. Housing adds a permanent population, and commercial uses located within walking distance to residents, reduce traffic and promote a pedestrian culture. Since 1991, each MDP, in some form or another, have stated, as an immediate action item, to adopt a mixed-use zoning category. More specifically, for the last 10 years both MDP's and now the 2001 installment, call for the designation of a NAC zoning category. To date, no such zoning category is codified, but members of the planning staff claim that it might be unnecessary because current zoning addresses the salient uses.

Mixed Uses

Each NAC is either located in the Commercial, General Commercial, or Neighborhood Commercial zoning district. They all permit a variety of uses including medium density housing (20 units/acre). While North Street is the only area in the city zoned Neighborhood Commercial, a zoning amendment passed in September 2000 permits typical commercial uses that previously required a zoning permit. The amendment was recommended in the North Street Revitalization Plan to encourage small businesses, such as art galleries, bicycle repair shops, banks, bakeries, tailor shops, and food stores. These uses are permitted in the Commercial and General Commercial zones. It appears that these three zoning districts are currently mixed-use zones, thus aligned with the spirit of the NAC concept and not a barrier for implementation.

Setbacks

To engender a more pedestrian friendly and welcoming public street, a street wall can play an important role, thus the impetus for the recommendation of zero lot line setbacks in the 1994 NAC Report. Currently, the zoning code does not require a front yard setback in the three zoning districts. However, there is no maximum setback requirement either. Therefore, encouraging developers to locate parking in the front of a commercial project can be difficult. It is a constant source of contention between developers and the approval board. If the city's policy of encouraging a defined street wall is codified, perhaps the approving body can apply conditions more sternly.

Lot Coverage

In the three zoning districts, the maximum allowable lot coverage is currently 80%, which does not reflect the recommended 100%, stated in the 1994 NAC Report. A zoning amendment is pending for a Neighborhood Activity Center lot coverage bonus. The amendment was unanimously adopted by the Planning Commission in May of 2000 and awaits review by the City Council. The bonus applies to 'any site identified as a Neighborhood Activity Center in the September, 1994 Neighborhood Activity Center Report' (ZA 2000-03). The bonus allows an applicant an additional 5% of lot coverage, totally 85%, for increased landscaping in parking lots; an additional square foot of lot coverage for every additional square foot of upper story development – up to 90%; and developments that provide housing in conjunction with commercial are allowed an additional two square feet of lot coverage for every additional square foot of housing – up to 90%.

Parking

Parking is a contentious issue in any city because both the city and businesses want to make sure that an ample amount is provided, but too much can degrade the visual plane of the street. A component of the NAC concept is to reduce the amount of required parking by locating several uses in a compact urban center. The desire for shared parking is reflected in the zoning code with a parking waiver provision. The project approval body has the discretion to grant parking waivers. According to Section 10.1.19 of the Zoning Ordinance, subsections (a) through (d) respectively, a parking waiver may be granted "if the applicant can demonstrate that the regulation is unnecessarily

stringent for reasons of: unique uses times; shared or dual use; availability and projected transportation modes, including the adoption of a traffic management plan for one or more uses; and/or anticipated reduction in vehicle ownership in connection with affordable housing units.”

Projects and Improvement to Four Neighborhood Activity Centers

Use, setbacks, lot coverage and parking are the extent of regulatory mechanisms applicable to NAC's and to realize the concept. Physical improvement to the public realm is another equally substantive mechanism allowing the NAC concept to come to fruition. The NAC Report clearly states that the private sector will be the primary players that “ultimately brings the NAC concept to fruition” (DPZ, 13), but the public sector must create incentive by improving the public realm to attract private investment. While the NAC concept is still in its nascent period, to date some public improvements to the four NAC's have been completed and many more improvements are scheduled in the future. Also, a few development projects are currently being built in NAC's. Below is a summary of the changes to date and an analysis of how they meet the threshold of the NAC concept.

Ethan Allen Shopping Center

In September 1999, David G. White on behalf of David Hauke, the EASC's owner, submitted an application for site plan review to the Department of Planning & Zoning to complete a major redevelopment of the Ethan Allen Shopping Center. The City of Burlington allows for a preliminary site plan review before submitting a formal application to the decision making body. This is an effort to work towards an agreeable proposal in order to reduce the review time by that body and gain faster approval. This was the first opportunity to try and implement the NAC concept and see it realized. Conditions were ripe to do this because the applicant was proposing a major reconfiguration and redevelopment of the shopping center. Several key elements of the proposal were identified in the Act 250 permit application as follows:

- New 48,000 sq ft Hannaford Supermarket
- New 7,200 sq ft post office
- Four new buildings to be demolished and four new ones to be built

- Overall square footage on site decreases by at least 5,800 sq ft and optionally over 16,000 sq ft (see Exhibit1)
- Plans incorporate many ideas from Burlington’s Neighborhood Activity Center study
- Architectural variety
- Urban-style streetscapes and street grid
- Optional second floor office space in the proposed “Center Building”
- Phased project over several years (White, Act 250 application, 1)

The proposal included: an internal street network; increasing access to Leddy Park; buffering the sidewalk from the parking lot with an enhanced green belt; and improving the street edge with a building fronting North Street.

Suffice to say that the prospect of redeveloping this site was very exciting to both city officials and residents. Several members of the planning staff and a member of the Planning Commission, expressed to me that they felt it was a tremendous opportunity to apply the NAC concept by: increasing the amount of floor area, adding density and multiple stories, improving the quality of the center, providing greater vehicular, pedestrian and bicycle circulation and access, increasing the mix of uses currently in the center, adding much needed housing, and bringing the buildings out to the street.

However, the plan was deficient in responding to many of these elements. Of the four new buildings, only one was proposed to line North Street. No second stories were originally proposed, but after negotiations with the developer they agreed to build a second story on the ‘center’ building in the future, if the market for office warranted it. The city hoped for additional density, but the proposed net square footage actually decreased. Although an internal street network was proposed, the center still faced inward with the main entrance relegated to the side street. The 1994 conceptual plan proposed to increase the center’s prominence and visibility by introducing a gateway entrance on North Avenue; this design was not integrated. Figures four and five illustrate the difference between the conceptual plan and the redevelopment proposal. And finally, additional housing was not proposed.

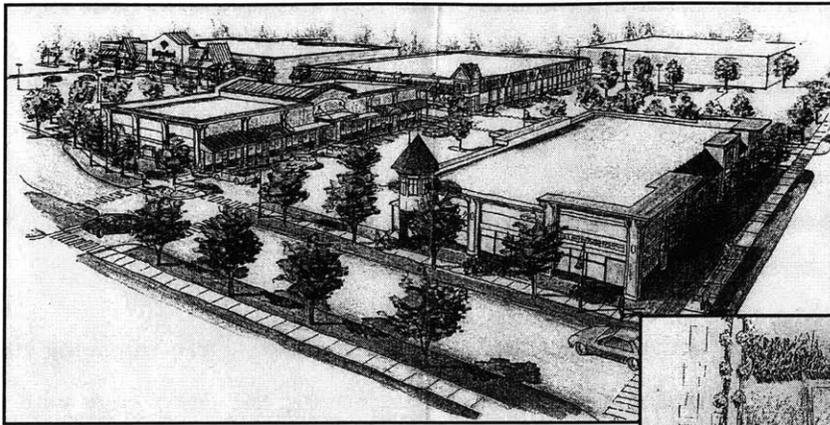


Figure 7 Perspective of EASC redevelopment proposal, by Freeman French Freeman. Source: COA 00-031 project file.

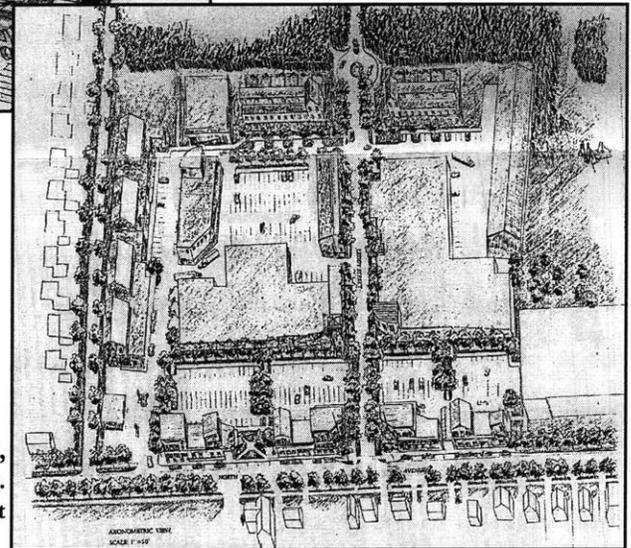


Figure 8 EASC Conceptual Plan, perspective drawing. Source: 1994 NAC Report

David G. White, the developer, characterized this plan in correspondence, applications, to the press and to me, as a rather progressive shopping center redevelopment design. He expressed in the Act 250 permit application that this was not a suburban center, but a neighborhood center in a very dense area. “The architectural design also enhances the urban character proposed for the neighborhood” (White, Act 250 application, 1). He explained to me that he thought the NAC concept was a good idea, but there were several elements that could not be incorporated due to site, market, and functional constraints. First, adding buildings to the street edge created a problem because front and rear entrances to businesses are often discouraged for security reasons. Second, they felt that housing was not an option for this center because, “who would want to live in a shopping center.” According to David White of the Department of Planning & Zoning, “they were not willing to go the housing route, they didn’t see that there was a market for additional housing in that area.” Furthermore, David G. White mentioned shared parking as a potential problem.

Residents want convenient parking close to their homes and retail customers could potentially take those spaces. Also, if residents were parked in front of businesses, patrons would have greater difficulty accessing shops. Third, since they ruled out housing as an option, the only viable second story use was office, but at the present time he claims there is a lack of market demand, but if the market shifts they are required to build it as part of the Planning Commission's Conditions of Approval.

There was virtually no public opposition to this project and, in fact, several supporting were submitted to the Planning Commission. The surrounding community was excited at the prospect of getting a new supermarket, a post office, and greater access to the Leddy Park. However, Elizabeth Krumholz, a resident of the North End and former member of the Planning Commission, in a letter to the Planning Commission, articulated her concern that the spirit of the NAC was not being met. Below, she describes her understanding of the intended concept as conceived during the numerous discussions in the late 80's and early 90's.

"...My experience with the task force had shown me that we in the north end wanted a mixed-use facility that could continue to grow with us in order to maintain our well developed sense of residential neighborhoods up and down North Avenue, and fulfill our desire to keep open space open in light of massive housing growth that had been encouraged in the previous plan. We also had stated that this 'Center' should be a resource for Burlington and not a magnet for other communities in light of the traffic circulation problems and residential character of North Ave" (Krumholz, 1).

Planning staff and Commissioners were frustrated because they recognized the significance of this project just as Elizabeth Krumholz did. She stressed in her letter that this project was perhaps one of the most important applications in Ward 4 over the next 25 years. Planner, David White, in a response to a question about building additional stories for housing, said, "(developers) are missing the boat in the short term and the long term by not enabling it to happen in the future by (constructing) buildings that might accommodate additional stories, it is a loss to the city." He also expressed some disappointment because it could be another 50 years before the opportunity arises to redevelop that large swath of land.

The Planning Commission unanimously approved the project on March 9, 2000. The project does take advantage of several zoning mechanisms intended to bring the NAC concept to

fruition. Although the Neighborhood Activity Center Density Bonus is currently awaiting approval by the City Council, since it was pending at the time and approved by the Planning Commission, the developer was able to increase the allowable lot coverage from 80% to 85% by adding more landscaping in the parking lot. The project will have 82% lot coverage. Also, because the center contains multiple uses, and is located near a bus stop, they received a 43% parking waiver from the Planning Commission. Asked if the project fulfills all the goals and objectives of a NAC, Planner David White said it fell well short. However, one must consider the speed at which new ideas and monumental change can occur. Asked if the design of this project is considered progress, Planning Commissioner Elizabeth Humstone replied, "bringing one building to the street edge, breaking up the parking, and possibly adding a second story can be considered progress." One small note however, the project will be completed in several phases and the North Avenue building is slated to be completed in the final phase.

Shelburne Plaza

Shelburne Plaza, located at the southern end of the city on Shelburne Street and Interstate 189, was identified in the 1991 MDP as one of three potential locations for NAC's. A site assessment and conceptual plan for this NAC was not completed as part of the 1994 NAC Report. It was identified again in the 1996 MDP as a possible NAC. The owner of Shelburne Plaza, Pomerleau Real Estate, submitted a proposed modification of the existing shopping center in 1998. At the time, the shopping center consisted of two big box buildings. The larger, main building included the following tenants: Sears, Nadeau Drug, Service Merchandise, and Price Chopper. A separate smaller tenant building was occupied by Sears Automotive Center.

The proposal included demolishing the smaller 13,000 square foot Sears Automotive Center located at the southwestern portion of the site, a new 4,600 square foot (204 seat) TGI Friday's restaurant, and a 6,000 square foot retail addition to the main building. As part of this project, the applicant proposed to refurbish the shopping center, including the relocation of Price Chopper to the vacated Sears space in the main buildings. The site refurbishment included increased landscaping, parking lot reconfiguration, increased pedestrian/bicycle amenities, lighting, and an improved building façade. In addition, Pomerleau Real Estate, in coordination with the Burlington

Arts Council and Chittenden County Transit Authority (CCTA), proposed to create a ‘pocket park’ at the northwest corner of the site with pedestrian and art amenities. This aspect of the project was intended to heighten the attractiveness of the area and create better pedestrian access at the corner of Shelburne Street and Home Avenue to coordinate with CCTA’s proposed bus shelter (Pomerleau, Act 250 application, 1).

This particular proposal presented little opportunity to realize the NAC concept on this site. The opportunity in this case was attempting to create more neighborhood uses and bring those uses out to the street. A pocket park was installed and the TGI Fridays was built. Planning staff worked with the developer to bring the restaurant out to the street, which did happen. However, between the restaurant and the main building lies an asphalt sea of parking. From the perspective of the objectives for the NAC, one can argue that a better pedestrian friendly public space was not achieved. While the pocket park was built, it is underutilized and arguably misplaced with respect to the context of the surrounding urban form and Interstate highway exit. The site plan in Figure six shows the configuration and the mass amount of parking.

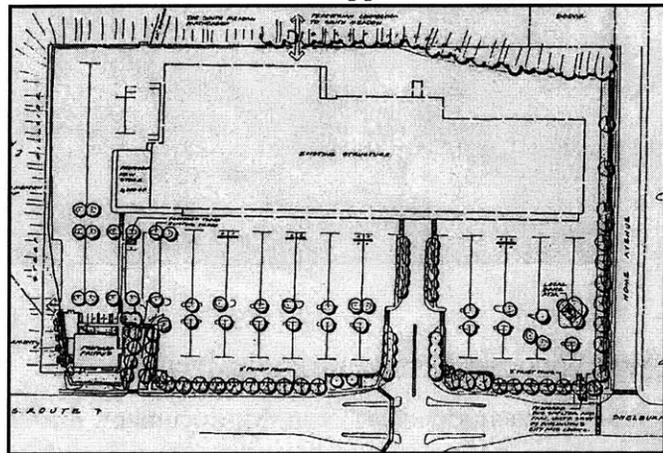


Figure 9 Shelburne Plaza redevelopment site plan.
Source: 98-084 project file.

Housing was never considered for the site, but the proposal did not suggest a major redevelopment similar in scale to the EASC. The Planning Commission attempted to grant a 50% parking waiver for multiple uses, but instead the applicant opted to provide excess parking. According codified parking requirements, the project was required to provide 555 spaces, while 655 existed and they added another nineteen. Once again, Elizabeth Humstone agreed that bringing the Friday’s restaurant out to the edge of the street could be considered progress. She also stressed the enormous potential with this site because of the adjacent residential neighborhood as seen in the contextual plan in Figure seven.

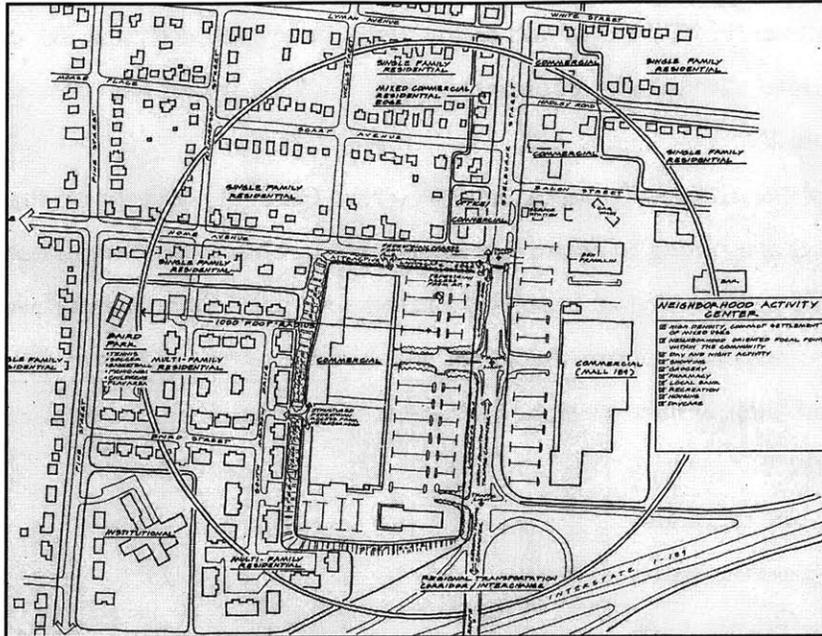


Figure 10 Shelburne Plaza contextual plan. Source: 98-084 project file.

North Winooski Avenue/Riverside Avenue

As mentioned earlier in this document, this NAC was characteristically different than the last two, in that it is characterized by smaller multiple parcels, a number of existing buildings in disrepair, and multiple property owners. Clearly, redevelopment of this area into a neighborhood center would quite literally happen incrementally. The Old North End needs some commercial development very badly. According to Development Review Board member Julie Campoli, “Unless you add commercial (uses) to the North End so that people don’t have to drive out of the neighborhood for everything and create some jobs, then (it) continues to be (a) suburb that generates traffic.” The public sector is still in the process of completing several of the infrastructure improvements recommended in the 1994 NAC Report. Street trees were planted on the south side of the North Winooski Avenue, on the upper block, and a wider green belt was installed. None of the recommended traffic calming devices were implemented. Nonetheless, a major project located on the southwest corner of Riverside Avenue and North Winooski Avenue spurred more public investment in street improvements.

The Burlington Community Land Trust (BCLT), a nationally recognized non-profit affordable housing developer, is currently building a mixed-use project at the gateway to Burlington. Commonly known as the ‘Bus Barns’ site, the city’s bus and trolley operations have been located on the parcel for over 100 years, needless to say it was determined to be a brownfield site. BCLT viewed this site as a tremendous opportunity on many fronts as stated here in their 2000 Annual Report. “BCLT not only understood the importance of this brownfield site and its impact on the community, but actively sought the project as a way to invest in the revitalization of the neighborhood. Our plans involve environmental clean-up, which is underway, and uncovering and enhancing the historic buildings to commemorate the important history of the site” (Burlington Community Land Trust, 5). Two brick garages/barns (one 4-bay and one 1-bay), as seen in Figure eight, with a 6-bay metal-framed addition existed on the 2.1 acre site. Figure eight Both barns will be restored and converted to apartments and a new building with rental apartments will be constructed to provide a total of 25 permanently affordable housing units. An aerial photograph of the site is seen in Figure nine.



Figure 8 Historic carriage barn.

Source: BCLT, 5.

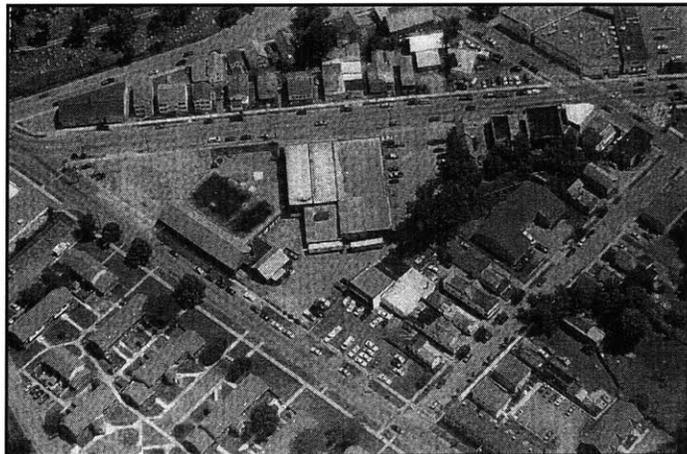


Figure 9 Aerial photograph of the Bus Barns site located at a gateway to Burlington at the intersection of Riverside and N. Winooski. Photo by Sanders Milens.

Source: BCLT, 4.

While the metal-framed addition will be demolished, both original brick barns will be preserved. The smaller barn will be converted to nine one-bedroom apartments and the northern bay of the large barn will be converted to four one-bedroom apartments. A portion of the large barn will be converted to program space for the Good News Garage; a non-profit program that provides donated cars to low-income families for the cost of repairs and trains low-income people to

become mechanics. The remainder of the large barn will be converted to 5,000 square feet of retail/commercial rental space. Finally, a new twelve-unit (two bedroom units) apartment building will be built along North Winooski Avenue. Approximately one third of the site will become landscaped open space; the majority of which will be a courtyard space in the center of the site to enhance the residential quality of the development as illustrated by the site plan and elevation in Figure ten.

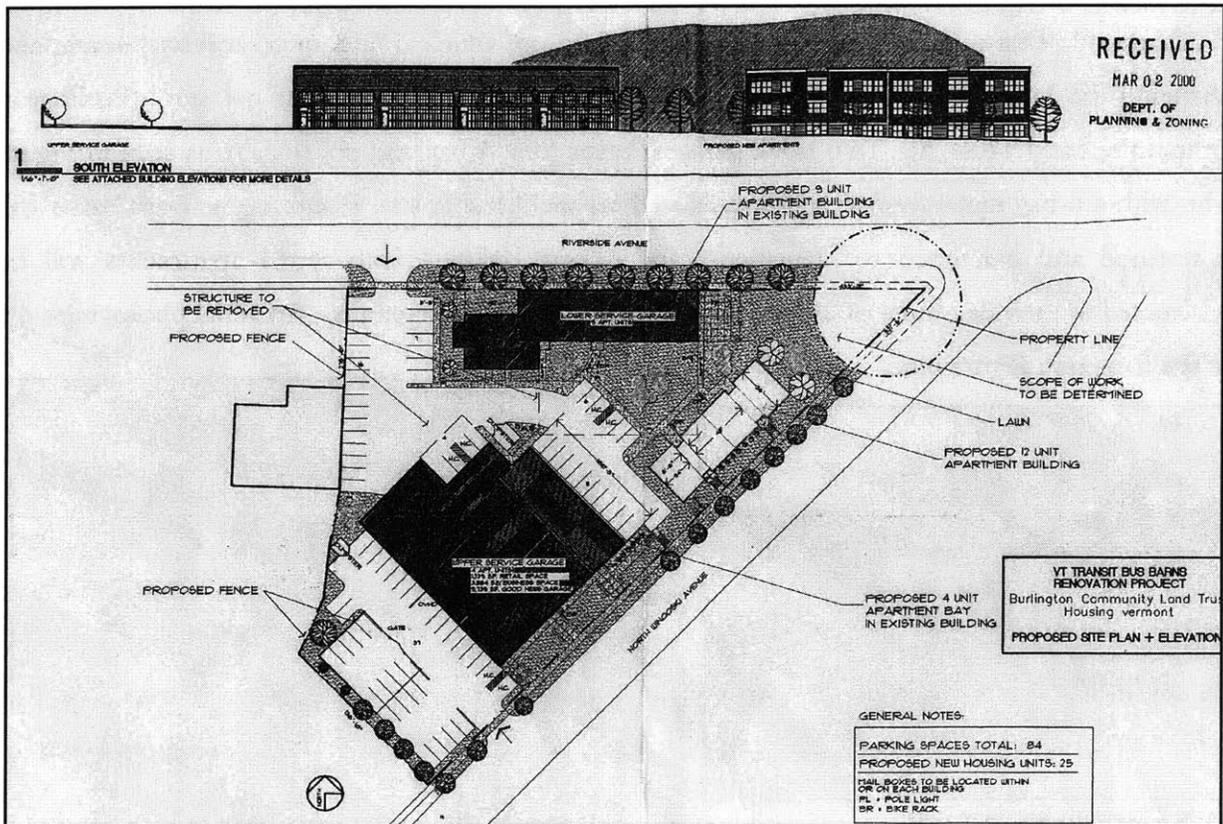


Figure 10 Bus Barns project - site plan and elevation.
 Source: COA 00-039 project file.

The financial structure for this project was extremely complex and involved several funding sources. A campaign was initiated to raise money for the Good New Garage portion of the development. The residential portion had to be split between two separate partnerships because different tax credit programs were used. Funding sources included: the Vermont Housing and

Conservation Board, the City of Burlington with Federal Home dollars and the city's Housing Trust Fund, section eight vouchers through the Burlington Housing Authority, and private equity through the Low-Income Housing and Historic Tax credits.

Before this project was conceived some street improvements were completed on the upper block of the NAC area. To complement the project the Department of Public Works (DPW) completed a streetscape plan for the upper block, from Archibald Street to Riverside. Dan Bradley, a Transportation Planner with DPW, explained that this plan involves virtually all of the recommendations produced in the 1994 Report including: planting shade trees, burying utility lines, narrowing the street with bump-outs at intersections, parallel parking bays, bike lanes, and providing a larger green belt. To pay for the improvements, DPW is in the process of applying for an Enhancement Grant, which is part of the federal TEA-21 program and awarded by the state.

Several other improvements have been completed in the NAC. Sam's Unfinished Furniture, located down the block recently completed a facelift on their building. Across the street from the Bus Barns project, the Community Health Center is in the process of refurbishing their building. According to David White, a member of the Department of Planning & Zoning, a major criticism of the development that has occurred in this area, is that "the uses are too oriented toward the non-profits and they need to be mixed up more." According to Amy Demetrowitz, a project developer with the BCLT, this project could be a major catalyst for revitalizing the neighborhood, which was one reason why they chose to develop this site. Finally, a pocket park was installed at the corner of Archibald Street and North Winooski Avenue. There is some sense that this site is not the ideal place for a park considering the significance of the corner. Currently, the park is not highly used given the busyness of the intersection, but Julie Campoli, the design consultant for the 1994 NAC conceptual plan, explained that when the shade trees mature, it will potentially become a more serene open space.

The Bus Barns project can be viewed as a model for future developments in NAC's. It incorporates almost every element of the NAC concept and meets the objectives in the Legacy Project and the vision defined in Municipal Development Plans. Elements such as: historic preservation, additional affordable housing units, brownfield clean-up, a mixture of uses, streetscape improvements, a defined street edge by building to the lot line, architectural variety, shared parking,

and preserving the historic character of the neighborhood. From the perspective of building higher density, one might conclude that the project achieves only half the allowable density (twenty units per acre) for this zoning district (General Commercial). However, this is explained by the historic preservation requirement that the new building could not be taller than the existing large barn. Therefore, given the size of the site and the amount of land remaining, apart from the existing buildings, a higher density project could not be achieved.

Two of the NAC related zoning regulations and incentives were used for this project. The new building being constructed on North Winooski Avenue will be built to the lot line, thus defining a street wall, which was identified in the 1994 NAC Report as a deficiency on the upper block. In addition to meeting the zero lot-line setback provision, the project also received a parking waiver. A 19-space parking waiver was granted by the Planning Commission based on the criteria that the project involves multiple uses and there is an anticipated reduction in vehicle ownership in connection with affordable housing units. City officials are confident that this project can act as a catalyst for private investment because it has set the tone for mixed-use development in the area. The project is the first step toward allowing the NAC concept to come to fruition in this neighborhood.

North Street

North Street is viewed as the main street of the Old North End. Within the Old North End about one third of the residents are below the poverty line, but that also means that two thirds are not. That population is relatively middle class and includes working class people such as teachers and city workers. The neighborhood is relatively dense, housing about 10,000 people in approximately eleven square blocks. Kirsten Merrimen, the project lead in the Community and Economic Development Office, explained that this neighborhood declined over a fifty year period, but because of the revitalization planning process the neighborhood is on the up swing. Being that North Street is the historic center of the neighborhood; the vitality and action on that street can be a gauge for the vitality of the area. On North Street, there are approximately 133 housing rental units, a dozen single-family homes and between 28 and 33 businesses depending on the year.

Since the North Street Revitalization Plan was conceived in 1998, several improvements have been completed. Last year, there were approximately \$140,000 worth of building improvements, which included a mix of commercial and home façade improvements. Several new businesses opened on North Street since the planning process began, including the Neighborhood Bakery and Café, which is expanding. The owner of the business realized the locational advantage of the North Street. Kirsten Merrimen explained to me that she felt that the neighborhood was an untapped market given the density of residents in the area who were not being served.

Over the next five years the street will, in effect, be rebuilt. All the utility lines will be relocated underground, a wider green belt will be installed, bump-outs will be installed, and street trees will be planted. There are several historic architecturally significant buildings on the street, most of which are built to the lot line and a solid building frontage currently exists. As part of the North Street Revitalization Plan, the city adopted zoning changes to permit a number of neighborhood type uses that formally required a zoning permit. Kirsten Merrimen explained that this was a critical component because it enabled small business owners, who are strapped for funds, to streamline the permitting process and start up their business quicker. During the planning process, North End residents essentially decided the neighborhood oriented uses listed in the zoning amendment, which authorized them as permitted uses.

Overview

While the North Winooski Avenue/Riverside Avenue NAC is on its way to becoming a mixed-use neighborhood center, Ethan Allen Shopping Center and the Shelburne plaza fell way short of meeting the expectations of the NAC concept. After speaking with several Burlingtonians about the development that has occurred in NAC's, they explained that although the projects were disappointing from the threshold of an NAC, the site design was more preferable than other recent projects. Specifically, buildings were brought to the street edge and pedestrian and bicycling circulation was considered and integrated into projects.

The Neighborhood Activity Center concept is essentially one smart growth tool. It envisions a shift toward more defined and active neighborhoods with a central area for services and commerce. Services are nearby housing and meeting places for the local community. Notably, they

are easily accessible by walking or biking and symbolize the neighborhood by the types of services and commercial uses local residents prefer. These places can engender a sense of place and investment and reduce the need to travel for basic services. Ideally, they can reduce several of the negative effects of sprawl such as, congestion, lack of social interaction, no sense of place, little pride in the community, and a lack of neighborhood investment. However, NAC's are not the type of infill development that will inevitably be locations that absorb a significant amount of regional growth (meaning additional square footage and population). Yet, they can play a legitimate role to produce a series of distinct neighborhoods that offer vitality and a strong sense of community, which are amenities that potential residents value. Thus, in some way, they can attract people who otherwise might consider moving to suburbs.

Neighborhoods on the upswing, where investment is occurring and vibrancy is emerging, often raise concern of gentrification (increased housing prices and retail rents). Some residents in Burlington with respect to NAC's, have raised these concerns, especially in the Old North End in response to the reinvestment of North Street. Kirsten Merriman, the project coordinator for the North Street Revitalization Project believes that there is little danger for that to occur in this area because parcels are small, several historic buildings will remain, and thus the only real type of new development will be small neighborhood type businesses. Furthermore, the compactness of the street is not ideal for big-box retail stores, which often require large amounts of land and square footage. However, housing prices are continuing to skyrocket because of a housing shortage. There is a fear that gentrification is a real threat if the housing stock is not expanded. Because Burlington places a great importance on affordable housing, there are mechanisms in place to ensure housing availability for current residents.

3.2.4 Growth in Downtown

The City of Burlington would like to see the majority of growth to occur in the Central Business District (the downtown) and in the RH (High-Density Residential) district surrounding downtown. Downtown Burlington is truly the cultural and commercial core for the city and the region. "It is home to several of Vermont's largest financial institutions, offices for city, state and federal government, entertainment and cultural centers such as the historic Flynn Theater and

Memorial Auditorium, and premier retail including the Church Street Marketplace and Burlington Square Mall” (City of Burlington, 1996, I – 9).

The city asserts that it would like to see more urban densities in downtown and primarily more housing. Following the NAC concept at a larger scale, they would like to encourage a mixture of uses to protect and increase the vitality of the area. In addition, “Adding housing makes more efficient use of space and public facilities, lessens the need for automobiles and parking, and adds vitality and an improved level of security in the evening. Downtown housing must accommodate (in both affordability and type) all income groups in order to ensure a diversity of residents. It cannot, and must not, become an enclave for either rich or poor” (City of Burlington, 2001, I – 10-11).

As one mechanism to promote development in downtown, the city is considering to seek designation of the area as a ‘Downtown Development District’ by the Vermont Downtown Program, a state program. This designation allows the city to provide various incentives for development, such as state tax credits and low interest loans.

Currently, towards the goal of a diverse housing stock in downtown the city offers a variety of density and height bonuses for projects that include public benefits. A density bonus can be obtained by providing affordable housing, elderly housing, or adaptive reuse of a non-residential structure to housing. The maximum allowable residential density in the Central Business District (CBD) and the RH district is forty dwelling units/acre. With the density bonus, a developer can max out at eighty units/acre. Height bonuses are awarded in the CBD for development that includes at least 20% affordable housing and for the provision of public parking. Full use of the bonus can yield an allowable height of 80 to 100 feet.

In an effort to increase density around the CBD, the Planning Commission recently adopted a zoning amendment to increase the maximum allowable height in the RH to 70 feet. The City Council must now consider and vote on that amendment. David White, of the Department of Planning & Zoning, expressed to me that he has “been surprised with the level of (public) support for the density increase. (Furthermore), whether we can keep the momentum going will depend on the level of success of the first few projects that get done.”

4 Challenges to Densification & the Role of Urban Design

4.1 Good Design as a Critical Component to Curb Sprawl

Research has shown that one of the primary reasons why developers continue to build in suburbs and not in central cities is due to the unpredictability of the permitting process. The developers I spoke with in Burlington cited public opposition as the most difficult hurdle to overcome in getting projects approved. Furthermore, the city staff and other politically involved residents that I interviewed concur with this assessment. Through these interviews, it was made clear to me that developers are not building projects to the maximum allowable density in Burlington, especially housing. Developers are continually faced with NIMBYism from adjacent neighbors when they propose higher density projects. Residents are fearful of what higher density might mean to the quality of life in their neighborhood. Moreover, not only are they concerned about the impact of a bulkier structure, but they perceive affordable housing as bringing several negative effects to the neighborhood. Ironically, this fear starkly contrasts with the values and vision tacitly stated in the Legacy Project and Municipal Development Plans.

Herein lies the rub, Burlingtonians generally agree that some growth is desired and that growth in a built out city means more density. However, they are passionate about preserving neighborhood character and their current village-like quality of life. Burlington, and any city desiring more efficient growth, in contrast to sprawl, is faced with a great challenge. While Burlington has perhaps gone farther than most cities in determining a vision that by definition contrasts sprawl, they are now faced with the difficulty of trying to bring about higher density projects.

More compact development is widely accepted as a critical tool to curb sprawl and almost by definition compact development means higher density. Since design determines the quality of higher density projects, urban design is a critical component of curbing sprawl. However, the role of design has been fundamentally overlooked as a component of growth management or smart growth strategies. Douglas Porter, President of the Growth Management Institute, reiterates that sentiment below.

“Surprisingly, quality-oriented techniques are seldom considered to be ‘growth management.’ Typical lists of growth management techniques, including one of 47 items formulated in the 1970s, include no examples specifically addressing quality control, although one or two (e.g., zoning bonuses and incentives) might be employed for that purpose. The most vivid legal battles over growth management techniques have been fought over restrictive growth limits, boundaries, and infrastructure requirements. Recent publications on growth management give community quality short shrift. Somehow community character seems to be viewed as falling outside the principal aims of growth management” (Porter, 147).

Difficult lessons have been learned from trying to implement various growth management programs that entail growth boundaries, rural land conservation, coordinated infrastructure, and promoting infill and redevelopment. The last part is where the contention lies; unless particular attention is paid to the design, quality of the project, affect on the quality of the neighborhood and community centers, people won't back it. What a community's neighborhood will look like after it absorbs growth is a legitimate concern on behalf of residents (ref. in Porter, 150). It is reasonable to conclude that the role of urban design and architecture needs to be more clearly defined as it influences the ability to get higher density projects built. In Burlington, a discussion is growing to determine the desired amount of growth and what that means for the exiting character of the city. Urban design should play a significant role in this discussion.

4.2 Educating Density and Teaching Awareness of the Built Environment

The city is beginning to make an effort to explain density to the public and present scenarios that can give the public a better understanding of what factors determine urban form. In concert with the Vermont Forum on Sprawl, the Burlington Department of Planning & Zoning received a grant to complete a build-out study over the next five years. This study is intended to accompany and influence the next major rewrite of the Municipal Development Plan, scheduled for 2006. Elizabeth Humstone, Associate Director of the Vermont Forum on Sprawl, made it clear that in terms of higher density projects, “You need to sit down to show (the public) what (density) could be like (in relation to) what they want and what they would like to see (their neighborhoods) become.” Moreover, she further explained that there is a need to approach residents and ask, “What does density look like that you like and what does density look like that you don't like.” She clarified that the build-out study will explore places in the city where they think more density is appropriate and

develop some design parameters that need to be implemented in order for that density to gain acceptance.

The present dialogue in Burlington about the appropriate amount of growth has included the notion that the city might be able to double in size. David White, a Comprehensive Planner in the Department of Planning & Zoning, explained, “The notion of taking a community the size of Burlington and plopping it on Burlington is kind of scary. There has been little discussion of how to meet the infrastructure needs.” The build-out study will explore what the maximum build out could be within the constraints of acceptability and sustainability. David White further explained that they will be presenting the density issue to the public by asking questions like; “What does a population of 80k or 60k or 50k people, begin to look like under the parameters that have been defined and then is that acceptable to you, is that what you want your city to look like, then in the final step, we begin to look at numbers. This is going to be essential!”

Recommendation

Urban design should play a significant role in the build out study and within the public discussion of increased density. To inform the public about the role of design and the meaning of density, the city should take advantage of the established grassroots network of public participation and begin to conduct focus groups about density and design. Experts in the field of architecture and urban design should be invited to explain the role of design. The city should attempt to explicate the interdependent relationship between good design and preserving and heightening neighborhood character. Responding to concern over density issues, they need to begin to dispel the myths that residents

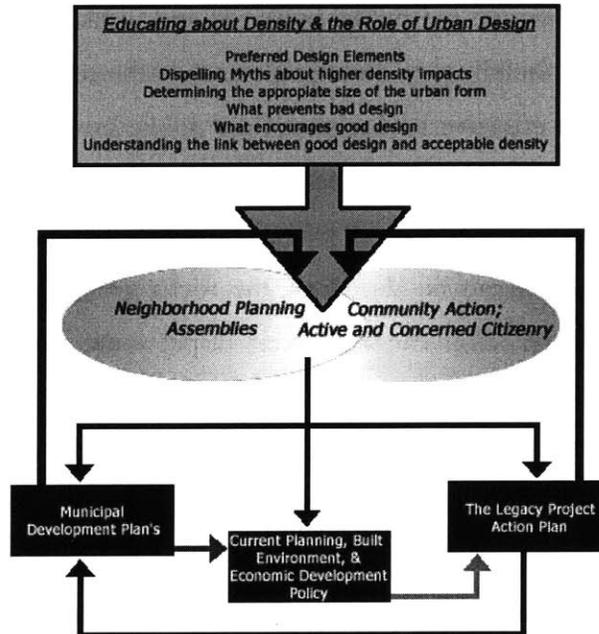


Figure 11 A diagram of an imbued educational program that teaches the role of design within the existing cyclical citizen participation process (Chapter Two, Figure 3).

have about the impacts of higher density projects. For example, that higher density does not automatically mean a lower quality of life, and can in fact mean more vibrant places. Residents must also be educated about the connection between their feelings about sprawl and that an inevitable solution requires more density. A dialogue needs to emerge about architecture and urban design. Julie Campoli, a landscape architect, a member of the Development Review Board, and a resident, framed the problem well when she said, “In our American culture we just aren’t trained to look carefully at our built environment. People don’t know why they like something or not, they are not used to looking at buildings.”

In an effort to explain the significance of better design, the public should be taught to look more closely at the built environment. While this recommendation can be construed as a commentary on how design and the physical form should be integrated in school curriculums from day one, Burlington can easily tap into an interested public to heighten their awareness of the urban form. In a recent design charette for a the Pine Street Corridor in Burlington, Julie Campoli conducted a Visual Preference Survey (VPS) for residents to determine what elements and architecture the public preferred and disliked. The survey consisted of showing slides of elements from buildings to streetscapes, while the respondents rated their preferences numerically. The VPS is an effective tool to teach the public how to look more closely at the built environment and by incorporating slides and questions about high and low density projects it can be used to educate about density as well. Well designed higher density projects and poorly designed lower density projects can be shown to the focus groups so they learn to discern how good design can hide density. This can effectively dispel some popularly held myths of the impacts of higher density projects.

To complement the focus groups and the Visual Preference Survey’s, I recommend incorporating photography as another educational tool. For example, the City of Austin, Texas administers a Taking Pictures for Neighborhood Planning educational technique as part of a neighborhood planning process. Residents are asked to go out with a disposable camera and take pictures of elements such as architectural details, street furniture, different types of residential and commercial structures, and streetscapes. Not only is this a tool intended to heighten the public’s awareness of their environment, but also meant to help create a photographic record of the

neighborhood. The photos are “used by the Neighborhood Planning staff and as part of a visual character survey to help develop design guidelines to accompany a neighborhood plan” (Planning, Environmental and Conservation Services Department, 1). Burlington can use this tool as part of a comprehensive educational program to help residents become more familiar with their built environment and the disciplines of architecture and urban design. The technique can also be used to develop specific design criteria.

As this process evolves, Burlingtonians will develop a list of architectural styles and design elements they prefer and desire to see incorporated into new development. These elements can be codified and required of new projects. In addition, to encourage a systematic approach those elements should be illustrated in the visual material accompanying the build-out study. Numerous renderings and illustrations are critical to a notable build-out study. In explaining what more density will mean in Burlington and what is preferred, residents should be presented with visual material characteristic of the styles and design elements they prefer. I contend that this approach will be well received by residents because it is consistent with Burlington’s proactive and holistic participatory ethic. As residents gain a greater appreciation for, and a better understanding of, the importance of design in realizing their vision for the city, the approvals process for individual projects may become more predictable for developers and quell the concerns of residents.

4.3 Development Review Process and Codified Standards

I spoke with several people who concurred that residents oppose higher density projects based on a perception of negative impacts that the numbers (height, square footage, units) of the project yield. Since residents make these judgments based on the information presented to them, it is reasonable to look at the way in which projects are described and reviewed during the approvals process. A member of the planning staff in Burlington concedes that they “Need to do a better job ... to help understand and articulate and illustrate what (density) means, and higher density can happen if it is designed well. If it is an ugly building it doesn’t matter if there are two units, it is still going to have a greater impact. If it is well designed it’s going to blend in much better.” However, this may be difficult to accomplish in Burlington because as a city official, well educated in the field

of design and a long time Burlington resident, eluded that there is a very low standard for architectural design in the community and ponders why people put up with it, but they do. Because design is so important to ensure that a higher density project will blend in well with the existing urban form, and the public does not explicitly scrutinize architecture, the propensity for greater density in Burlington is questionable given the present quagmire.

Currently, all development projects are reviewed by and approved by the Development Review Board. This Board was recently formed and “puts all local development review functions of the Planning Commission and the Zoning Board of Adjustment under a single board” (Eldridge, par. 1). The Planning Commission was overburdened with the responsibilities to do both long-range planning and approving development projects, now they are solely responsible for setting land-use policy and conducting long-range planning.

In terms of reviewing the design of projects, projects located within a design control district, which encompasses most of the city, is subject to design review in order to receive a Certificate of Appropriateness (a zoning permit). As stated in Section 3.2.3 of the Burlington Zoning Code, “The (Design Review) district is intended to preserve, protect and enhance those areas within the city containing structures of historical, architectural or cultural merit.” Furthermore, according to Section 6.1.3 of the code, “Within these areas no structure may be erected, reconstructed, substantially altered, restored, moved, demolished, or changed in use or type of occupancy without approval of the plan therefore by the ~~planning commission~~ (Development Review Board).” The Development Review Board is charged with the responsibility to consider how each project meets the design review criteria set forth in the code. They may request recommendations from the Design Review Board, whose role is strictly advisory. Before the project gets to the Development Review Board, the applicant is strongly encouraged to schedule a predesign conference with the zoning administrator in order for the developer and the city to equally understand what expectations exist and avoid the possibility of having to resubmit an application.

Ideally, each project proposal should incorporate, and to the greatest extent necessary, meet the design review criteria. While a list of ten criteria apply to all design review districts, within the waterfront and central business district areas, an additional ten criteria are set forth. The codified criteria are consistent with verbiage postulated in MDPs – preserving neighborhood character, view

corridors to Lake Champlain, historic structures, open spaces, and ensuring that the current quality of life is not altered. The criteria are intended to ensure that the general objectives, as defined in the MDP, come to fruition in the form of new development. However, the criteria set forth in the code read as objectives, rather than standards that each project must meet. Virtually each criterion uses language that appears to intentionally deflect an applicant's responsibility to incorporate certain elements. Words such as, 'are encouraged to,' 'this type of development is discouraged,' 'where appropriate,' 'insofar as practicable,' and 'to the greatest extent possible.'

The criteria are quite ambiguous in that they do not clearly identify nor require specific site design and architectural elements. For example, Section 6.1.10 Design Review Criteria subsection (a) states:

"Relate development to its environment. The proposed development shall relate appropriately to its context. It shall relate harmoniously to the terrain and to the use, scale and architecture of existing buildings in the vicinity which have a functional or visual relationship to the proposed structure(s). Proposals that deviate substantially from established neighborhood patterns should be discouraged."

One can assume that this criterion suggests that the architecture and site design of projects should attempt to; maintain setbacks in accordance with existing frontages, include architectural elements similar to adjacent buildings, and maintain a building height similar to adjacent buildings. Although these assumptions are written upon with more specificity in other sections of the code relating to height and setback requirements, they do not emphasize the meaning of how to relate development to its environment.

Other criteria read like the last. For example, subsection (b) "*Preserve the landscape.* The landscape, existing terrain, and any significant trees and vegetation shall be preserved in its natural state insofar as practicable." Again, the Additional Review Criteria are just as ambiguous even though they attempt to influence the design of the project more intently. For example, Section 6.1.11 Additional Review Criteria subsection (a) states:

"Protect existing scale and streetscape. The arrangement of new structures and facilities should respect and be compatible with existing development. Where appropriate, new structures should be built to the street property line to retain traditional street patterns and the integrity of city blocks and their corners."

This language appears to be more specific, but applicant's may be uncertain about 'where appropriate' means and even though it can be clarified by staff, more specific guidelines would solidify the meaning and intent of the objective.

Perhaps, the most stringent criterion is subsection (b) of the Additional Review Criteria, "*Protect views and corridors.*" It explicitly states that "...No new structures shall be permitted to obstruct views of Lake Champlain or mountains from nearby public ways except to the extent that it extends access to the view to significant sections of the community or is for uses which have a clear public purpose." A contrast exists between the fervent language of this criterion and the feeble verbiage of the others. I contend that this contrast speaks to the physical characteristics that Burlingtonians value most. The natural environment of Burlington is held sacred to residents and the degree to which it is valued is ubiquitous. Although historic preservation is also stressed, to a great extent, in plans and the zoning code, the architectural elements and site design features of proposed development are not as clearly understood and valued. Therefore, the code reflects what Burlingtonians value and understand most, but also reflects their lack of awareness of important design elements, in that the code does not contain strong language to engender development that incorporate commonly valued architectural features.

Recommendation

Zoning and building provisions should be groomed to require types and styles of development that correspond to the communities' vision. A basic understanding of how those zoning and building provisions can influence the quality of design is critical and can be effective to placate residents' fears of higher density projects. Burlington's zoning code contains very specific standards for numerical thresholds relating to the site design and bulk of the urban form. These standards are typical of any zoning code as they address setbacks, building heights, maximum number of residential units, square footage, and parking. However, as explained above, there is little articulation relating to preferred site design and architectural features. This lopsidedness is reflected in the way projects are presented to the public and how they are reviewed. While numerical thresholds are distinct, citizens and board members can easily debate the legitimacy of certain projects. If the design criteria are ambiguous, so to is the discussion about those issues. When

residents fail to have a clear understanding of what they like or dislike, they are forced to react to the numerical values of the proposed development. This is problematic because they are not considering qualitative factors. Moreover, members of the Development Review Board are left with little discretion to discuss the aesthetic merit of projects and more importantly, are forced to respond to concerns of residents that are heavily linked to numerical thresholds.

Consequently, Burlington should consider two efforts to heighten the importance of site design and architectural features. The City Council should amend the Development Review Board section of the code to require that a certain number of members have a design background and an understanding of urban design and architecture. The Development Review Board is required by ordinance to include at least one licensed attorney with significant land-use law experience. The board is comprised of seven members and two alternates from the Planning Commission. Currently, five members of the board are attorneys and only one member with a design background.

While the Design Review Board is made of members with experience in design and historic preservation, the board plays an advisory role by making recommendations to the Development Review Board. In no way do I intend to make a claim that the Design Review Board is not consulted, but they have little discretion to scrutinize projects, especially with a lack of codified architectural standards (the standards will be addressed as the second effort). Furthermore, because new development significantly alters the shape and quality of the urban form, which is determined through design, design issues seem too important to be relegated to an advisory board. Whereas the Design Review Boards role is essentially to work with the applicant to get the best possible design, it seems appropriate that a discretionary board, which wields power, should include members that clearly understand how proposals will play out in the built environment.

The second effort that city officials and residents should consider, is using the valued site design elements and architectural features developed from the comprehensive educational process discussed earlier, and require them as articulated criteria in the zoning code. There are two ways to go about this: first, develop citywide criteria that is more specific than the current list, and second, develop neighborhood or district-wide criteria that identify certain design features that represent the architectural heritage of the area. The Additional Review Criteria for the waterfront and central business district exemplifies an effort to tailor certain requirements to fit the unique qualities of

districts. However, these criteria (design features), must be specific, were appropriate. For example, since the city desires more pedestrian oriented streetscapes and vibrant centers with mixed-use development, they need to explore the design elements that engender that vision. One way to do this is to consider certain façade standards that require a certain amount of window area, material variety, front door placement, and type and style of awnings. The important point here is to develop specific elements that respond to existing character and relate to each district. These criteria could be adopted through an overlay district or by developing neighborhood plans.

Citywide standards could be less architectural and more oriented toward context through urban design standards. Using the same objective as above to create more pedestrian oriented streetscapes, these criteria could include requirements, such as: all new buildings must be built on the lot line unless public space is being provided; all new development in commercial districts must be mixed-use; all parking must be hidden, and at the very least, located in the rear of the lot; and if certain development obstruct view corridors, an effort must be made to create public access to enjoy those views.

Higher density development is a sensitive notion and effectively alters the massing of the built environment. An effort to articulate the type of urban form that higher density projects should exhibit to better relate contextually seems sensible. One major concern is that higher density projects generally degrade the quality of street life with menacing bulk and shadow casting. In addition, “Large scale redevelopment projects have the potential to conflict with character of an existing area by creating abrupt changes of height and scale between new and old buildings” (NSW Department of Public Works and Services [NSWDPW&S], 22). To remedy this, the city could adopt a measure to ensure that an appropriate transition of building heights occurs and that the heights remain in proportion to street width. Using a Development Control Line, as diagramed below in Figures two and three, the proportionality of street to building façade can be guaranteed.

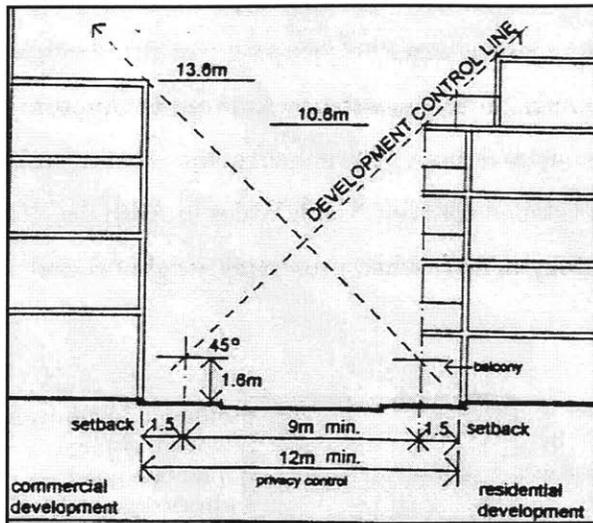


Figure 2 "Example of development controls and minimum setbacks. The lower levels of development in narrow streets should relate to street width. Source: NSW Department of Planning, 1995" (Source: NSWDPW&S, 23).

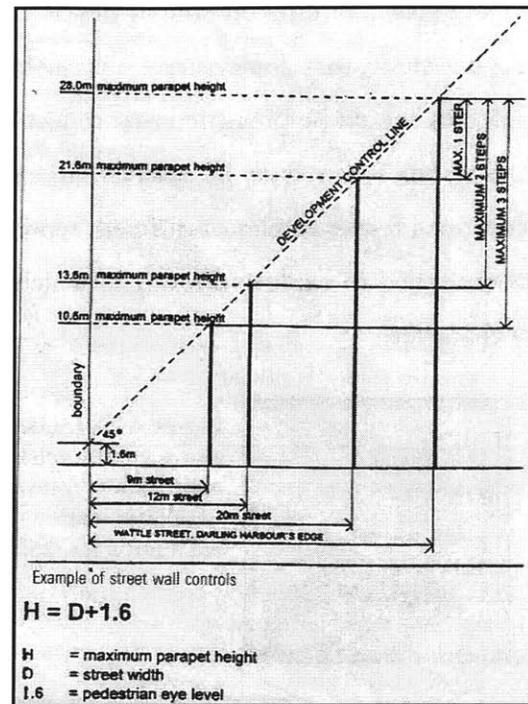


Figure 3 "Example of development controls and minimum setbacks. Well proportional streets are generally 1:1 street width to building height. Source: NSW Department of Planning, 1995." (Source: NSWDPW&S, 23).

To meet the objective of enhancing the pedestrian environment, the shape and style of facades should be well articulated and focused on the ground floor design. In 1987, the City of Charlotte, North Carolina amended their Uptown Mixed-Use District Ordinance to ensure that the upper stories of (five stories) larger buildings must be differentiated from the ground floor. They offered design elements intended to enhance the pedestrian streetscape, “such elements as cornices, beltcourses, corbelling, molding, stringcourses, ornamentation, changes in material and color, and other sculpturing of the base as are appropriate must be provided to add special interest to the base” (qtd. in Lassar, 79). Additionally, the code asserts that attention must be paid to the window treatment on the ground floor, as stated here. “Band windows are discouraged; instead, recessed windows that are distinguished from the shaft of the building through the use of arches, pediments, mullions, and other treatments are encouraged” (qtd. in Lassar, 79).

Finally, Burlington should develop a set of building typologies, perhaps to accompany the build-out study, that demonstrate how higher density massing can fit on existing parcels. A range of typologies should be presented that reflect the character of designated growth centers. Appropriate building types can then be selected to complement, and hopefully enhance the existing urban. Below are a few examples of different typologies developed for New South Wales in Australia. They too attempted to explore the way in which to carefully densify while preserving neighborhood and city character.

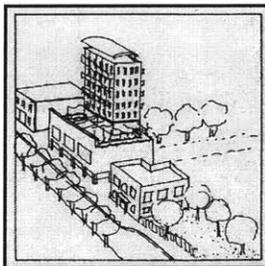


Figure 4 "A residential tower above commercial use could be appropriate in town centers close to railway stations" Source: NSWDPW&S, 25.

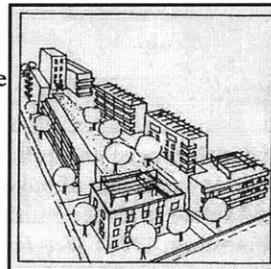


Figure 5 "Perimeter block buildings maintain good street edge and can enclose generous communal courts" Source: NSWDPW&S, 24.

Figure 6 "Stepped buildings with large private terraces may be suitable for sloping sites" Source: NSWDPW&S, 25.

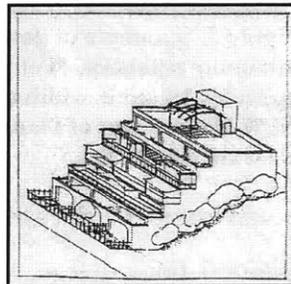
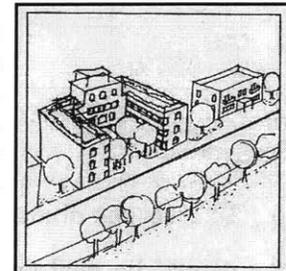


Figure 7 "U-shaped buildings can generate interesting, articulated streetscapes and form elegant entrance frontcourts to residential buildings" Source: NSWDPW&S, 24.



Clearly, these recommendations require the adoption of several new regulations, which are often frowned upon by developers and property rights advocates. However, Melinda Moulton, a developer who practices sustainable development in Burlington, expressed her vehement concern about the level of development that should occur in Burlington, by saying that "there should be standards where (the city says), if you are going to invest this much money in our city, then you need to meet (certain) criteria, guess what, if you don't then get out." While her statement speaks to the desire for high quality development, it is perhaps more important with the prospect of higher density projects. Because higher density development induces a contentious debate about

preserving neighborhood character, greater emphasis should be placed on a development strategy that assuage potential degradation of community character and pedestrian quality.

4.4 Courting Developers: Challenges & Recommendations

In chapter one and two of this thesis I presented several reasons why developers continue to build on undeveloped land in suburbs rather than in central cities. Most of those challenges cannot be overcome by local efforts of central cities' because sprawl development occurs outside their jurisdiction and regional control is often weak. Since development in suburbs is cheaper, an economic case must be made to developers that building in central cities can be viable. A sound economic case is beyond the scope of this thesis; however, municipalities can address the timely approvals process and perhaps the unpredictability of the permitting process. The approval process in most central cities is drawn out, complicated and often unattractive for developers. In an effort to streamline the approval process, (as discussed earlier in this chapter) Burlington recently formed a Development Review Board to allow for quicker approvals in order to compete with the swiftness of outlying suburbs. Before the Development Review Board, review and approval responsibilities were split between the Planning Commission and the Zoning Board of Adjustment. Now the complete approval and review responsibility rests on the shoulders of the Development Review Board.

Super-performing projects should be subject to an abbreviated approval process in order to encourage and appreciate, more effort on behalf of the developer. A checklist of detailed principles and specific requirements can be produced, which, when satisfied by the applicant, will result in immediate approval. These super-performing projects would achieve a high level of architectural achievement, integrate public access and public space, meet the objectives and goals of the city by providing affordable housing, bottom floor retail, higher density, shared parking, well thought out landscape design, to name a few elements. Not all of these may be required, but further investigation to develop a list in accordance with community wishes and existing municipal zoning laws proactively encourages the type of development that will achieve the city's vision. There should

be a way to differentiate, between a developer who acts in good faith and engages the community, from one who is just trying to get by.

I have established that educational efforts must be employed to convince citizens that higher density can be acceptable, and even preferred, with good design and careful consideration of contextual issues. Therefore, it is in developers best interests, if they wish to do business in central cities like Burlington, to engage the public in determining the design and amenities for the project. Developers often frown upon this process because they fear the prospect of having to remain accountable to the publics' wishes, which sometimes can be costly. However, part of the argument towards making this effort lies in a moral responsibility that developers have to communities in which they work. Developers shape the physical environment of other peoples communities, therefore, they have a responsibility not to degrade that environment, but to respect and improve it as part of a moral contract. The effort may in fact win them favor and the prospect of a quicker approval. Moreover, it can boost their reputation, which can lead to more jobs and perhaps faith and commitment from the community and a decision making body they will face in the future.

4.5 Summary of Recommendations

Education and Public Process to Define the Role of Design

- Focus groups
- Visual Preference Surveys
- Taking Pictures – Photography of the urban form to create a photographic record of important neighborhood design elements and increasing awareness of the urban form

Out of that process...

- Develop a list of valued site design elements and architectural features
- Adopt these as design criteria in the zoning code
- District Criteria
- Citywide Criteria

Build Out Study

- Incorporate design criteria in illustrations for the scenarios Use those elements to illustrate possible density scenarios as part of the build out study
- Infrastructure capacity and expansion should accompany each scenario

Guide Higher Density Projects

- Adopt code requirements to preserve and enhance pedestrian oriented streetscapes, for example:
 - Development Control Line
 - Buildings must be on the street
 - Buildings in the downtown must be mixed use
 - Parking must be hidden
 - If certain development obstructs view corridors an effort must be made to create public access to enjoy those views.
 - Building facades should be well articulated with specific architectural features
- Develop a set of diverse building typologies that increase density, but accommodate the contextual urban form

To Ensure Design Achievement and Developer Interest

- Require the Development Review Board to maintain a percentage of members with design and architecture experience
- Waiver for Super-Performing projects

Developer Responsibility

- Engage the public to determine the design and amenities of projects

Conclusion

Sprawl vs. Compact Development

Infill, in the form of compact mixed-use development, is established as the necessary pattern of development to respond to sprawl. Using Burlington, Vermont as a case study, this thesis pointed to the numerous institutional, political, economic, and logistical challenges to getting infill done in central cities. As those challenges persist, sprawling development continues at an unprecedented rate. An unfair competition is being played out between central cities and suburbs, while the real losses are nonrenewable, in the form of social interaction, clean air, clean water, special places, defining public spaces, unique natural landscapes, and delicate ecosystems. Although the consequences are real, sprawl persists for a number of reasons. It is cheaper and easier to build on the periphery, while redevelopment and infill projects are often painstakingly complex. The rural and pastoral heritage of Vermont places a cultural value on land ownership, helping to drive low-density development. Much of this thesis focused on the challenges and possible solutions within Burlington, as a central city, to realize its own vision of sustainability through the process of infill development. However, the pace at which low-density, haphazard development occurs on the fringes of cities, without consideration for regional, national, or global impacts, is a fact that cannot be ignored.

Julie Campoli, a member of the Development Review Board in Burlington, frames the dire situation of sprawl vs. infill well. “Really you have to do two things at once: you have to infill and you have to stop or slow down (development) out there. If you don’t make an attempt to slow it down then (infill) doesn’t happen because there is no incentive for developers to do it. That’s why you need a regional approach. Burlington can talk all it wants about adding 20k or so people, but if the surrounding communities have their arms wide open to developers, why would anyone bother to do it in here?” Vermont’s Acts 200 and 250 are heralded by smart growth and sustainability-oriented organizations as model legislation to fight sprawl. However, a lack of funding, Regional Planning Commissions with little authority, and competition between cities has allowed sprawl to

accelerate on Vermont's working landscape. Burlington can only attract only so many people with its amenities like Lake Champlain, cultural activities downtown, small town hospitality, and vibrant neighborhood centers, as evidenced by its population decline over the last forty years. The majority of development will continue to occur where it is cheapest to build.

The rural and pastoral heritage of Vermont places a cultural value on land ownership, helping to drive low-density development. Vermont continues to be the destination of migrating ex-urbanites who seek a slower paced lifestyle and vast natural beauty. Vermont exports an image of small town life and working landscapes. Ironically, the idyllic image that Vermont exports threatens its continued existence. Migrants seek to own a piece of the natural beauty, which results in sprawling development patterns. As part of the rural heritage, low-density development plainly contrasts the most basic tool to curb sprawl – more compact, urbane development.

Vermont's natural beauty also includes the small town lifestyle of village centers. Although Burlington experiences more urban problems than the rest of the state, it still exhibits a small town lifestyle. I state repeatedly that Burlingtonians cherish their current small-town quality of life and they approach the prospect of an increased population with apprehension. Even in Vermont's largest city, the prevailing culture contrasts with more compact, urbane development. Paradoxically, the rural and pastoral heritage of Burlingtonians and Vermonters exerts pressure on their ability to curb sprawl and achieve a more sustainable future.

Although one might question whether higher density projects are applicable to Burlington or other traditional town centers in a rural state such as Vermont, Burlington continues to ask the right questions. The pervading environmental ethic in Burlington is commendable and motivating. Because they value their lifestyle and recognize sprawl as a threat, both city officials and residents are searching for the best possible solutions within a sustainable framework. In the coming years, during public meetings, in conversations on the street and between neighbors, they will attempt to arrive at some threshold for growth that will also ensure a city of quality neighborhoods. Encouraging smart growth in Burlington will not in and of itself slow down development on the periphery. But if other traditional town centers follow Burlington's lead and together they adopt a regional approach to land-use planning and growth, perhaps Vermont can begin to curb sprawl.

Implications of Recommendations

Central to my recommendations is a shift of the methods of analysis used for development review from primarily quantitative measures to more qualitative measures that scrutinize projects based on their design and the impact of that design. Citizens do not have an innate awareness and understanding of what constitutes the good design of cherished places. In order to realize a methodical shift, citizens need to be pointed to the design elements that determine the type of urban form they prefer. As a dialogue increasingly focused on the aesthetic value of development projects emerges, cities can obviate perceived threats to the existing qualities of neighborhoods. Although this dialogue may be more easily accomplished in Burlington, due to its active and informed citizenry, it is an essential component to diffuse NIMBYism in any city. Therefore, all cities need to attempt to create a similar level of public engagement to truly shift the substantive review of projects from numerical standards to aesthetic value. Burlington is one of the most progressive cities in the United States because they approach social, economic, environmental, and physical development issues holistically guided by a vision of sustainability. They are committed to realizing a socially just and environmentally conscious city. Therefore, the case of Burlington, a city that considers its global impact, truly demonstrates the monumental challenge of curbing sprawl. Most cities are not enlightened to the degree that Burlington is; thus, cities are faced with a great challenge.

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