

The Built Environment

OVERVIEW

Lincoln's zoning policies and its successful efforts in land conservation and historic preservation over the last four decades have preserved its rural beauty and small town character and thus contributed to making it one of the more desirable western suburbs in which to live. As a result, Lincoln attracts an affluent population with the capacity to purchase, renovate, expand and sometimes demolish existing homes to create newer, larger homes to satisfy their needs. Over time, this trend toward building larger homes and the natural desire to do so near conservation lands could have the unintended consequences of adversely affecting the town's attractive preserved character. In addition, some current building and land management practices may adversely affect the natural settings that have distinguished Lincoln from average suburban development.



Key Findings

- ❖ Lincoln's built environment - its buildings, structures, objects, roads and fields - is inextricably linked with its open space and underlying natural environment.
- ❖ Unlike many "traditional" New England villages, Lincoln's visual character is defined more by the relationships of its buildings to the landscape than by any specific architectural style, building, or building pattern.
- ❖ Lincoln's built environment has design elements that repeat throughout the community:
 - ◆ The pattern of *undulating woodlands* edging the town's roadways and the varied arrangement of buildings placed within these trees. With a few notable exceptions, specific architectural styles of the buildings located in these areas do not dominate the landscape.
 - ◆ The *view from the roads*. Lincoln presents a variety of building-to-road associations, from the traditional farmhouse set close to the road with its associated outbuildings, fields and stone walls, to the historic country estates set within or at the back of a meadow or maintained lawn.

- ◆ *Lincoln's roadways.* Meandering and mostly curbless, Lincoln's scenic roadways are defined by their stonewalls, adjacent vegetation, and low posted travel speeds.
- ◆ *The relationship between the built and the unbuilt:* the combination of permanently protected land and low density development that allows the landscape to be the dominant, organic form.
- ❖ Lincoln has adopted zoning and other bylaws such as its Big House Bylaw, Demolition Delay Bylaw, Local Historic District Bylaw, and Neighborhood Conservation District Bylaw to preserve its rural character.

Key Challenges

- ❖ Despite the town's efforts, Lincoln is losing its small, older homes to major alterations, teardowns and mansionization. Identifying and implementing effective methods to encourage the updating and reuse of small housing units and discourage mansionization will be an ongoing challenge due to Lincoln's high land values.
- ❖ Lincoln has an informal policy of requiring owner approval before placing any building in a local historic district, and while the town recently adopted a neighborhood conservation district bylaw, no districts have been designated. Lincoln needs to find ways to more fully utilize these crucial tools for protecting the built environment.
- ❖ As Lincoln looks at strategies to preserve the important characteristics of its built environment, it is tempting to try to reduce critical relationships to ratios within a bylaw. However, with large lots and low densities, the usefulness of dimensional requirements alone in forming and controlling the built environment is limited. It may take non-traditional and non-zoning techniques to address these characteristic relationships effectively and to avoid unintended results, such as mimicking established patterns and existing features rather than achieving organic complementary growth.
- ❖ Contemporary lifestyles have led to a desire for multi-bay garages and structures for indoor recreation, such as enclosed courts and swimming pools. The design and scale of these structures can have a significant impact on the appearance of a residence and on the surrounding neighborhood, comparable to that of the construction of a new home.
- ❖ The design and placement of new residential development has potential consequences for Lincoln's expansive conservation parcels, which provide some of the town's most impressive scenic vistas. Improper scale and location of homes can encroach visually into the protected land, significantly compromising the public viewshed, privatizing the protected lands, and negatively affecting the conservation interests being protected.

EXISTING CONDITIONS & TRENDS

Lincoln is one of the few towns within fifteen miles of a major American city that has retained much of its traditional beauty and rural historic character. This has been achieved largely as a result of citizen and municipal initiative and resources. Lincoln is a remarkably scenic place with a well-preserved built environment, set in a varied and beautiful natural landscape that has been enhanced by human design and stewardship. The ravages that twentieth-century development brought to most American suburbs have been muted in Lincoln, thanks to the forethought, persistence, and creativity of its residents. Moreover, Lincoln is fortunate to have some of the twentieth century's notable examples of new design and construction that actually complement its natural

and historic setting. The overall scenic character of the town is exceptionally high, especially given its proximity to Boston. Lincoln's achievements have greatly increased the quality of life and property values of its residents. Ironically, its success may also bring the greatest future risks to Lincoln's remarkable visual character.

Lincoln's built environment is inextricably linked with open space and the natural environment, and for the most part it is thoughtfully integrated into the town's setting. In general, properties have few if any visible delineations, thereby giving the land a communal sense. The boundary demarcations that do exist are composed mainly of low stone walls that still allow vistas into and from each property. Front and rear yards are open, demonstrating less concern with protecting privacy than is seen in many other communities. Instead of erecting six-foot stockade fences, Lincoln residents seem more likely to rely on shrubs and trees to distinguish between public and private land and screen properties from view.

Unlike many "traditional" New England villages, the visual character of Lincoln is defined more by the relationships of its buildings to the landscape and less by any specific style of architecture, building, or building pattern. Lincoln's built environment consists of a varied architectural palette that ranges from the vernacular architecture of rural barns to houses built in the mid-twentieth century International Style. While this rich mosaic of form and style is reason enough for intrigue and admiration, of equal or greater note is the interplay between Lincoln's predominantly residential buildings and the land, which together define and articulate the overall visual character of the town. Lincoln's natural landscape patterns knit together its architecture with a composition of fields, meadows, and woodlands. This relationship between building and setting provide the foundation for Lincoln's pastoral nature, and in it can be seen two key aspects of the town's history: its agricultural patterns and historic country estates. While Lincoln is no longer rural in the traditional sense, neither is it traditionally suburban. The predominant patterns of its past persist even though the ways of life they originally served do not. Thus, Lincoln's built environment and natural landscapes represent a mix of new, old, formal, and informal architectural styles and building-to-space relationships.

Defining Key Relationships

One of the most characteristic and defining aspects of the built-to-natural landscape relationship in Lincoln is the pattern of undulating **woodlands** edging the town's roadways and the varied arrangement of buildings placed within these wooded areas. In most of Lincoln, there is no apparent, predictable pattern to this relationship, and this landscape variety allows disparate architectural expressions to coexist harmoniously. Even within Lincoln's more traditional residential subdivisions built during the last quarter of the twentieth century, the developments present a more organic design, with curvilinear street patterns and extensive use of vegetation than the repetitive, rectilinear lots and houses seen in other suburbs. Within a more standardized suburban relationship defined by uniform setbacks and a repetitive arrangement of dwelling units, Lincoln's varied palette of architecture would not be as successful. While Lincoln's zoning prescribes minimum setbacks, the large lot area requirement provides an opportunity to vary house settings within the lot, greatly reducing the potential for monotony.

The variety that defines many of Lincoln's building-to-lot relationships extends also to its building-to-road pattern. In the absence of a regimented, standardized arrangement of houses on their lots, the "**view from the road**"—rather than being a repetitive pattern created by uniform setbacks—presents a **variety of building-to-road associations**, from the traditional farmhouse set close to the road with its associated outbuildings, fields and stone walls, to the historic country estate set within or at the back of a meadow or maintained lawn. The views from these roads are constantly changing as the landscape forms change. The overall composition unfolds through views which, at times, are contained by stone walls or woodland edges, then open to longer vistas across

a meadow, farmed landscape, or an open field. The views in Lincoln are never static; they open and close, creating an element of surprise and a sense of discovery.

Not only are the views from the road a defining characteristic of Lincoln’s built environment, but so are the **roadways** themselves. Meandering and curbsless with adjacent vegetation and low, posted travel speeds, the exception for roadways in most communities is the rule in Lincoln. Existing access cuts along these roadways are traditionally understated, with narrow entrance widths. Even when addressing transportation and public safety concerns, Lincoln has used a “light touch” for its roads and thus preserved an integral part of its rural landscape character. This approach also has been applied to the town’s extensive network of roadside paths, which are often separated from the roads with a landscaped strip. In lieu of integrated sidewalks, the paths provide safe pedestrian travel while preserving the existing roadway character. In many cases, the paths are set behind stone walls and not visible from the road. Lincoln has also maintained the rural nature of its roadways by avoiding the contemporary steel guardrail systems seen in other communities; instead, it has relied on its existing concrete post and cable guardrails and wooden bollards with no horizontal rails.

Finally, the **natural setting** of Lincoln is itself a dominant element within the built environment. Environmental constraints are form-givers, and Lincoln’s wetlands, which account for almost thirty percent of the town’s total land area, have played a vital role in shaping and ultimately preserving its character. These wetland configurations have modulated building patterns, establishing edges and backdrops for development.

Ultimately, what has evolved from Lincoln’s early established built and natural settings are harmonious relationships between buildings, open spaces, and the natural environment, which have been fostered, protected, and emulated over the years. Today, these relationships create a landscape that residents appreciate and that continues to draw new people to the community. Viewed in its entirety, these relationships form a large part of what many call Lincoln’s “rural character,” a character that sets Lincoln apart from other communities and, in addition to town’s legacy of land conservation, plays a key role in its very high real estate values.

PATTERNS

Perhaps the most important, fundamental quality that contributes to Lincoln’s rural character is its patterns of buildings, roads, and spaces that appear unplanned or “organic” in their organization. This suggests an informality and spontaneity that have evolved and responded to changing economic conditions. This pattern of the built environment is so inextricably linked with the natural environment that it is difficult to say where one ends and another begins.

- ❖ **Agricultural Patterns.** Lincoln’s early agricultural heritage produced a vernacular architectural “style” and pattern of buildings associated with agriculture that has been preserved over the years. Today, one can see farm buildings “huddled” on the road, with edges defined by walls built with stones cleared from the field. The continued relative presence of agriculture not only contributes to Lincoln’s visual character but also has helped establish a set of values with respect to patterns of development and the placement of buildings. Many of these buildings would not be allowed under current zoning due to their small front setbacks, but since they pre-date zoning, they are grandfathered. If one were destroyed by a natural cause or fire, the owner would be permitted to rebuild if construction began within one year. The maintenance of this historic development pattern provides a critical connection with Lincoln’s agricultural past. Furthermore, preservation of the outbuildings associated with farms, particularly outbuildings no longer in agricultural use, will serve to maintain Lincoln’s rural identity.



- ❖ **Historic Country Estates.** A second important relationship is the development pattern established by the town's historic country estates, which emerged during the late 19th century after Lincoln's agricultural beginnings. These large, architect-designed homes are displayed against large, open, and maintained landscapes of lawn and plantings or open meadows. Though this arrangement is formal, in Lincoln they sit within a larger, more informal context of either wetlands or conserved lands.
- ❖ **Wooded Uplands.** A third pattern can be found in Lincoln's wooded uplands where the building-to-site relationships vary by location, although there are some general similarities. The specific architectural styles of the buildings located in these areas do not dominate the landscape. There is an informality in the layout of roadways (in many instances, these wooded house lots share a common drive) as well as in the relationship of the houses to the road. Actual building setback distances are varied, but for the most part, houses are set back from the street behind a front border of trees and vegetation. More often than not the maintained landscape is minimal compared to the total lot area, allowing the natural character to dominate.
- ❖ **Conventional Subdivisions.** Farmhouses and historic country estates capture what many people think of when they imagine Lincoln. However, for those who live in some of the town's mid-century homes, it is also

a place of pleasant, relatively conventional neighborhoods. From 1950 until the early 1970s, a considerable amount of land in Lincoln was transformed from woodlands to subdivisions. These postwar-era neighborhoods have fairly regimented setbacks, regular lots, and cul-de-sac or dead-end streets. They can be seen in South Lincoln in areas such as Hillside Road, Boyce Farm Road, and Giles Road, in North Lincoln on Silver Birch Lane and Acorn Lane, and along the east side of town, on Huckleberry Hill Road and Tabor Hill Road.

- ❖ **Open Space.** Perhaps the most important pattern for Lincoln is the relationship between the built and the unbuilt: the combination of permanently protected land and low density development that allows the landscape to be the dominant, organic form. Lincoln’s lot sizes are varied, and even where pockets of higher-density residential or commercial exist, they sit within or are framed by an envelope of open space.

The above relationships, while not exhaustive, constitute a framework for Lincoln to understand and plan for growth and change in its built environment. By understanding the elements that contribute to its often elusive sense of place and rural character, Lincoln may be able to identify tools and approaches that will help to preserve what is valued most, discourage what is liked least, and encourage the continuation of the critical patterns that make the town what it is while allowing room for inevitable and necessary growth and change. Lincoln residents have had a passion for preserving the town’s special qualities, and historically they have been willing to pay the short-term price of conservation. The town’s ability to absorb more development without eroding this framework is a critical question.

As Lincoln looks at potential ways to manage future growth, it may be tempting to try to reduce critical relationships to ratios within a bylaw. These characteristic relationships can be documented through tools such as visual preference documents and design guidelines. However, codifying them could prove counterproductive if new development simply mimics established patterns and existing features and is not organic. Establishing “typicals” could result in a forced repetition that would erode the rural nature of Lincoln’s character. By contrast, requiring new homes to conform to the land rather than changing the land to fit a particular house would help to extend the “organic” quality of Lincoln’s built environment to new development. Opportunities for spontaneity and creativity are essential. It will take non-traditional and non-zoning techniques, combined with zoning, to address these characteristic relationships effectively.

Regulatory Framework

Lincoln has approached regulating its built environment through the conventional mechanism of zoning and newer approaches that speak to specific concerns, such as its demolition delay and neighborhood conservation district bylaws. While the town’s local historic district bylaw seeks strict preservation of individual buildings and their architectural details, other regulatory tools are concerned more with the overall visual character of an area. The overall goal should be to create a tapestry of regulations and guidance documents that reinforce what is special about Lincoln while still allowing room for growth and creative change.

ZONING

Zoning is often the principal form-giving tool in a town. Since Lincoln adopted its first zoning bylaw in 1929, its residential zoning has gradually required larger lots, wide frontages, substantial front, side and rear setbacks, and modest building heights. In addition, while the R-2, R-3, and R-4 districts allow a variety of housing types, about 97 percent of the town is located within the R-1 district, which allows only single-family homes. Many structures built prior to zoning do not meet Lincoln’s current dimensional standards. The overall visual effect of these non-conforming structures is a varied rural landscape throughout most of Lincoln. In addition to conven-

tional single-family lot development, however, the zoning bylaw does allow denser housing development and cluster development, which preserves open space and moderately increases overall housing density.

An important addition to Lincoln's R-1 district is the "Big House Bylaw," which town meeting adopted in order to regulate the construction of oversized residences, often referred to as "big houses" or "McMansions." The Big House Bylaw evolved from a 1998 study that described these "too large" homes on "too small" lots as conspicuous in relation to their natural surroundings and adjacent houses.¹ It requires site plan review under Section 17.7 of the Zoning Bylaw for all new dwellings to be constructed on vacant land, or when the gross floor area of a home and accessory buildings exceeds the greater of 4,000 sq. ft. or eight percent of the lot area, or 6,500 sq. ft. Although the Planning Board considers the relationship of the proposed structure to the surrounding natural and built environment through site plan review, the established criteria are very general, providing little guidance to harmonize new construction with the context of the surrounding area. Many details regarding building placement, architectural detail and landscaping are not addressed or are addressed only generally within the zoning review process. However, Lincoln has established other regulatory devices to attend to more nuanced aspects of the built environment.

DEMOLITION DELAY

Since 1997, approximately forty-five properties have been the subject of demolition permit applications in Lincoln.² Recognizing that a proliferation of teardowns could threaten the town's visual character, Lincoln adopted a demolition delay bylaw in 2000. The bylaw applies to buildings listed in the National or State Register or within close proximity to National or State Register properties, or listed in the Inventory of Historic Assets of the Commonwealth. Due to a significant increase in applications for demolition permits, town meeting recently increased the delay period to 12 months. According to the Lincoln Historical Commission, in 2007 alone, eight demolition requests were granted, and two demolition requests were delayed under the bylaw.³ Demolition delay provides a *temporary* stay on a proposed demolition, but only for buildings deemed historically or architecturally significant by the LHC. If the LHC determines that a building is "preferably preserved," it can work with the property owner to save the structure or agree on a mitigation plan. Buildings not determined to be significant can be demolished once the LHC issues a decision.

NEIGHBORHOOD CONSERVATION DISTRICTS

Recognizing that some areas of Lincoln should be protected even if they do not warrant the same degree of regulation as a local historic district, Lincoln approved a neighborhood conservation district (NCD) bylaw in 2006.⁴ To date no districts have been designated. NCD has become an increasingly popular tool for communities to guide development in an area that exhibits special characteristics and meaning to the community. Unlike a local historic district bylaw adopted under M.G.L. c. 40C, which establishes a rigorous review and decision process for any alterations to a building's exterior architectural features, the NCD typically focuses more on general neighborhood characteristics such as the siting and scale of buildings, the relationship of buildings to each other and to the street, and the relationship between the built and natural environment.⁵ NCD is appropriate for

¹ Article 7 Zoning Bylaw Study Committee, *Report to the Town of Lincoln* (March 1998), 3.

² Mark Whitehead, Lincoln Town Planner, List of Lincoln Teardowns 1997-2007.

³ Town of Lincoln, *2007 Annual Town Report*.

⁴ See Chapter 4, Cultural and Historic Resources, for additional discussion of Lincoln's four local historic districts.

⁵ Rebecca K. Bicksler, *Neighborhood Conservation District Study for the City of Urbana, Illinois*, Department of Community Development, Planning Division, July 2006.

an area that may not be considered historically significant but has unique characteristics that could be diluted through inappropriate development.⁶

NCD bylaws vary widely from town to town. In Lincoln, the NCD bylaw is intended to encourage preservation of existing buildings within a designated area and to ensure that new construction, renovations, and additions complement both the existing buildings and the overall neighborhood form. The bylaw states that buildings within an NCD are not to be “frozen in time ... but should be able to grow and change to meet the needs of current and future owners and of current and future times, while conserving the neighborhood’s distinctive qualities as changes occur.”⁷ Residents of Brown’s Wood have submitted a petition for neighborhood designation. This mid-twentieth century neighborhood of modernist houses is defined not only by the striking architectural minimalism of its buildings, but also by their naturalized settings and roadway patterns. While Lincoln’s local historic district bylaw explicitly exempts landscape features from review, the NCD bylaw does not. Creating NCD review guidelines that permits the review of landscape and hardscape features is vital to preserving the neighborhood’s unique character.

ROADWAY REGULATIONS

Lincoln has designated about half the roadways in town as scenic roads under its Scenic Roads Bylaw (General Bylaws, Article XVII).⁸ In Massachusetts, local scenic roads bylaws are subject to M.G.L. c. 40, s. 15C, the Scenic Roads Act, which grants fairly limited jurisdiction to Planning Boards over work affecting trees and stone walls within the public right of way. Like most scenic road bylaws, Lincoln’s does not include specific design criteria. Recognizing the important role of scenic roads in preserving the town’s rural character, the Lincoln Garden Club recently completed the *Report on Lincoln Roadsides*, which is scheduled for publication in October 2009.⁹ The report recommends guidelines for road maintenance and improvements and identifies key entrance gateways that need improvement.

Lincoln has taken a novel approach to managing the appearance of its roadways by establishing specific design criteria for public way access permits under Article VI, Section 3A of the town’s General Bylaws. The criteria stem from roadway planning work that Lincoln commissioned in 1996, and they pertain to all town roads, not just those designated as scenic.¹⁰ Lincoln’s Ad Hoc Traffic and Roadside Committee is currently drafting roadway design principles for a major roadway improvement project, incorporating traffic calming features that would be consistent with the town’s rural character.¹¹

⁶ Larson Risher Associates, *Neighborhood Conservation District Study for the Town of Brookline*, Department of Planning and Community Development, September 2005.

⁷ Lincoln Neighborhood Conservation District Bylaw, 1.

⁸ Commonwealth of Massachusetts, Department of Conservation and Recreation (DCR), Heritage Landscape Inventory Program, *Lincoln Reconnaissance Report*, Freedom’s Way Landscape Inventory, 11.

⁹ Lincoln Garden Club, Draft Report on Lincoln’s Roadsides, April 8, 2008.

¹⁰ Vanasse Hangen Brustlin, Inc., *Roadway Design Guidelines* (1996).

¹¹ Lincoln Ad Hoc Traffic and Roadside Committee, *Memorandum on Roadway Design Principles*, May 11, 2008, revised June 4, 2008, September 16, 2008.

NEEDS, ISSUES & CHALLENGES

Character-Defining Features

Teardowns and Mansionization. Ironically, Lincoln's past success in preserving its historic buildings and landscapes poses a threat to its future character. One of the central characteristics of Lincoln's rural character is the scale and settings of many of its homes, especially the way they sit within their sites and the landscape, conforming to the land rather than changing the land to fit the house. However, the town's pristine rural character greatly enhances the value of its homes, often resulting in the land having more value than the modest house that sits upon it. While not unique to Lincoln, the teardown and "mansionization" trend could have serious physical consequences for Lincoln's built environment. The loss of modest housing stock and the potential erosion of its established visual character are critical concerns.

Demolition delay can influence the fate of an older home, but it is not intended to regulate all demolition cases and it is not always successful. Lincoln's demolition delay bylaw applies to buildings deemed historically or architecturally significant, much like the demolition delay bylaws in most towns. However, many of Lincoln's modest homes may not meet the criteria for significance. The buildings most at risk are the less obvious historic structures that form the connective tissue so fundamental to the character of the town. While Lincoln has an exceptional collection of architecturally significant buildings, most of its buildings are more vernacular in design and they are no less important to Lincoln's sense of place and visual character. In particular, Lincoln's 20th century modernist residences, built as modest, affordable residences by today's standards, are at significant risk for demolition. The aging of this housing stock combined with contemporary living preferences, which generally trend toward larger homes, make these buildings seem "obsolete" to many homeowners.

Even when a delay is imposed, the Lincoln Historical Commission has only 12 months to work with an owner to explore alternatives to demolition. This requires diligent effort by volunteers to seek realistic alternatives that both would appeal to a property owner and comply with Lincoln's zoning. Many communities have discovered that a 12-month delay period is not enough time for the complicated process that may be required to save a structure, including building relocation, searching for a new owner, and mitigation. In the past two years, several Massachusetts towns have extended their delay period to 18 months, yet just a few years ago, communities were amending their original six-month delay periods to one year. The challenges associated with administering demolition delay and the mixed results of demolition delay bylaws raise questions about the effectiveness of this tool for the problem it intends to address.

Concord, Lexington, Weston, and Wayland share Lincoln's concerns about teardowns and mansionization, as evidenced by their master plans and in some cases changes to their development regulations. Each has responded in a different way. For example, Weston created a design guidelines booklet, *Preserving Weston's Rural Character*, which highlights the town's rural design aesthetic and provides examples of "what to avoid." Lexington continues to experience a high rate of demolition and rebuild projects, including 64 last year and about 400 homes since 2000. Like Lincoln, Lexington recently increased its demolition delay period to 12 months. The Lexington Historical Commission also has conducted an education and outreach process to work with owners of houses defined as "preferably preserved" under the town's demolition delay bylaw, which applies only to homes listed in Lexington's cultural resource inventory.¹² Waltham just adopted a six-month demolition delay

¹² Town of Lexington, *Annual Town Report* (2007), 68; Article 15 Annual Town Meeting Warrant (2007); and Lexington Historical Commission, August 2007 (letter to Cultural Resource Inventory property owners).

ordinance in January 2008, five years after the City Council originally considered the idea but tabled it because of local opposition.¹³

Unlike the temporary effect of demolition delay, local historic district and neighborhood conservation district bylaws allow communities to prohibit teardowns. Communities such as Cambridge, Boston, Lowell, Amesbury, Newton, and North Andover also have recognized the important role of neighborhood conservation districts. While their ordinances and bylaws use different naming conventions (e.g., Neighborhood Preservation Districts and Architectural Conservation Districts), the regulations, guidelines and overall approach are the same: they are design-based and focus on the physical elements considered by each neighborhood to be worthy of preservation. Wellesley just established its first Neighborhood Conservation District, the Denton Road NCD, in April 2008. Lincoln's NCD bylaw is an important first step, but it will not be effective until residents of a neighborhood request and Town Meeting actually approves such a district.

A building or structure does not have to be demolished to have a negative impact on the aesthetic of an area. Inappropriate alterations through renovation, expansion, or poor maintenance can be as damaging as outright demolition. Moreover, the design and scale of accessory structures can have a significant impact on the appearance of a residence and on the surrounding neighborhood, comparable to that of the construction of a new home. Lincoln's present zoning did not anticipate market interest in large accessory outbuildings.

Accessory Structures. Contemporary lifestyles have led to a desire for multi-bay garages and structures for indoor recreation, such as enclosed courts and swimming pools. The design and scale of these structures can have a significant impact on the appearance of a residence and on the surrounding neighborhood, comparable to that of the construction of a new home. Historically, accessory buildings were either agricultural structures, like traditional barns, or were designed as smaller, architecturally similar, simplified versions of their associated main houses and located at the rear of the property. Some communities have set design guidelines for accessory structures in their local historic districts regulations and design review bylaws. They also limit the size of accessory structures by establishing size thresholds within their zoning, such as restricting an accessory structure to no more than twenty-five percent of the gross floor area of buildings on the lot or if not within a building, no more than twenty-five percent of the unenclosed area of the lot. Lincoln's present zoning did not anticipate market interest in large accessory outbuildings. The town regulates accessory uses, but it does not specifically address size or design requirements for accessory structures. Lincoln regulates the placement of accessory structures by requiring them to be located a specific distance from the street and side and rear lot lines, but in a less restrictive way than for principal structures. These setbacks requirements alone have limited if any value for controlling the effects of a large accessory structure on adjacent properties or views from the road. The Big House Bylaw does include accessory structures within the site plan review process, but this only affects construction that is subject to the bylaw.

Inappropriate Renovations of Older and Historic Structures. In Lincoln, it is often the relationship of a building with its landscape that contributes most significantly to the town's visual character. A building or structure does not have to be demolished to have a negative impact on the aesthetic of an area. Inappropriate alterations through renovation, expansion, or poor maintenance can be as damaging as outright demolition. Additions that

¹³ "Six-month demolition delay OK'd," *The Daily News Tribune* [online], 16 January 2008; and "In Waltham, little protection for this old house," *Boston Globe* [online], 9 December 2007.

are out of scale or inappropriately located in relation to the original structure can permanently alter an older or historic building and the surrounding streetscape. Poor maintenance of vegetation, poorly sited parking areas and garages, high-glare exterior lighting, and landscaping with incompatible plantings can have similar effects. Designating neighborhood conservation districts for specific neighborhoods and publishing design guidelines would help the town manage the impact of renovations and expansion of its older buildings.

Historic Country Estates. Historic country estates often have large unprotected land holdings, and the division of these properties into smaller, conforming lots can result in the loss of very valuable, character-defining assets. This typically occurs when the property cannot be maintained by a subsequent generation or a property is divided to accommodate subsequent generations. In either case, the essential balance can be compromised as a large parcel with one or two buildings, scaled to the size of the large lot it originally was sited on, is subdivided into a series of smaller lots with multiple buildings. The impacts on the visual character of a town such as Lincoln can be considerable and a challenge to mitigate. Lincoln has considered the possibility that some of its estate properties, now owned by non-profit institutions, might be developed in the future.¹⁴ The town does not have the kind of “great estates” zoning that exists in a handful of communities in Massachusetts, but it does have a tested, successful process for establishing special overlay districts to control and facilitate redevelopment so that it is compatible with the town’s interests.

Roadways. Routine maintenance and minor renovation of local roads can have a positive or negative impact on Lincoln’s scenic and historic character. Continued implementation of its standards for roadway design, maintenance and improvements will help to ensure that Lincoln’s local roads remain functional and beautiful. Plans for upgrading, expanding or relocating state roads, principally Route 2, have long been a source of concern. In its current condition and alignment, Route 2 does not contribute to Lincoln’s scenic character, with the exception of a few small historic structures located along the highway. Future alterations including widening, realignment and construction of sound barriers, jersey barriers, and other features that could further degrade the visual quality of Route 2 and significantly alter the character of adjacent scenic and historic areas.

Lincoln’s scenic roads bylaw only applies to work within the public right-of-way. Alterations to or removal of character-defining features such as stone walls, vegetation and trees, as well as driveways and walkways, that are located outside of the right-of-way are not subject to review, and the scenic roads bylaw also cannot protect scenic vistas as seen from the road. These elements of Lincoln’s existing bylaw reflect weaknesses in the state Scenic Roads Act, which would need to be updated by the legislature in order to serve as a more effective tool for protecting the scenic features of designated roads. In the past decade, some Massachusetts towns have adopted overlay districts to regulate development within a locally prescribed area along scenic ways. These bylaws, generally known as scenic corridor overlay districts, can encourage sensitive alterations and expansions of existing site features, as well as controls on new development, that impact scenic roadways.

Design Guidance

Many communities regulate the impact of development on visual character by implementing regulatory and policy tools such as design guidelines and educational tools, such as local pattern books and visual preference documents. In Lincoln, guiding the design of new buildings and development to maintain the town’s existing rural aesthetic is critical. Documenting the town’s key built environment relationships, which are as much about variety as architectural expression, in a pamphlet or booklet that can be used by developers and property owners would be an important first step in this process. There are many design and visual preference models available,

¹⁴ Vanasse Hangen Brustlin, Inc., and Community Opportunities Group, Inc., *At-Risk Properties Analysis* (2005).

including those prepared in other local towns such as Weston and Boxborough, and commercial and mixed-use guidelines prepared in Concord, Bedford, and Wayland.

New Development

Residential Development. Lincoln has benefited in the past by being able to view certain new development as a challenge more than a threat. Its success with steering new, well-sited and well-designed development to appropriate locations has brought Lincoln national recognition. While large, available undeveloped sites are rare because of Lincoln’s existing development pattern

and land preservation efforts, it is important to realize that Lincoln is by no means built out to its maximum capacity under current zoning. As population and development pressures increase, sites currently developed at lower-than-allowed density and back lots could be redeveloped. In addition, it is possible that some adjoining low-density properties could be assembled into a larger development site. Moreover, it is difficult to make a reasonable estimate of Lincoln’s future development capacity because even though most of the town is in a single zoning district, Lincoln has a successful track record of using overlay districts to create interesting, higher-density developments. The need for continued vigilance will be important for continuing Lincoln’s past success at managing land development. Otherwise what were thought to be stable, rural neighborhoods could transition into poorly planned and designed new developments.

It is important to realize that Lincoln is by no means built out to its maximum capacity under current zoning. As population and development pressures increase, sites currently developed at lower-than-allowed density and back lots could be redeveloped.

New Construction Bordering Conservation Land. The design and placement of new residential development has potential consequences for Lincoln’s expansive conservation parcels, which provide some of the town’s most impressive scenic vistas. This beauty can attract residential construction along conservation land borders, with homes placed to take advantage of views. Improper scale and location of homes can encroach visually into the protected land, significantly compromising the public viewshed, privatizing the protected lands, and negatively affecting the conservation interests being protected. A development checklist for site plan review and a visual preference document could provide guidance for applicants as well as for the Planning Board when considering new construction in sensitive locations. Further, some communities have used overlay districts to protect significant viewsheds. Protective overlay districts could supplement the underlying zoning district by adding regulations for road corridors with significant views, development patterns, or roadway characteristics worthy of protection, as well as for construction occurring in close proximity to conservation lands. The regulations for these types of districts could establish additional setback requirements or require an additional review process beyond what is normally required in the underlying district.

Commercial Development. As a matter of policy, Lincoln has deliberately limited commercial and office development to small-scale projects, notably Lincoln North and the Mall at Lincoln Station. However, several large-scale commercial and office developments are located in adjacent communities, sometimes close to the Lincoln town line. Pressure for commercial and office development will continue to mount from both outside and inside the community as economic, transportation, and energy factors evolve. Efforts to promote smaller-scale commercial facilities in South Lincoln have begun to encourage a more easily walkable, transit-oriented village center. These efforts should be continued, first to reinforce long-standing town planning objectives and second, to reduce the threat of inappropriate nonresidential development elsewhere. Lincoln does have some precedent for allowing office development in locations outside South Lincoln, such as the large professional

office compound in North Lincoln. The At-Risk Properties Committee also considered options for commercial uses when it studied six parcels located throughout the town in 2005.¹⁵

Additional Considerations

Government Facilities. Expansion or new construction of municipal facilities, state and federal facilities, utility corridors, roads and highways can significantly affect Lincoln's built environment and landscapes. Locating compatible, well-designed municipal facilities in existing activity centers will help to ensure that they continue to support the diverse character of these areas and set a good example for private development by avoiding construction on open land. While Lincoln has less control over development by state and federal agencies and private utilities, the town should continue to coordinate closely with them so that future construction projects address local concerns and standards. The future of Route 2, Hanscom Field, and Hanscom Air Force Base (HAFB) are obvious examples.

Lincoln owns several architecturally significant buildings that serve as municipal facilities, including the Town Office Building, Bemis Hall, Pierce House, and the Lincoln Public Library. Historically, Lincoln has been a conscientious steward for its historic buildings; if a building became obsolete for its original purpose, the town reused it to meet other public needs. Today, these buildings contribute significantly to the historic appearance and civic nature of the town center. However, they may once again face obsolescence due to a variety of factors: inadequate space, lack of access for people with disabilities, insufficient parking, and in some cases, deteriorating conditions. It is highly likely that a number of existing town buildings will need to undergo substantial renovation and/or expansion over the course of the next several years, and this along with the relocation of any municipal facilities will have to be carefully planned and designed to fit in with the character of the town.

Utility Lines. While utility poles and lines are an unsightly but accepted part of the American landscape, the advent of cable television, fiber optics and other wire-based services has the potential for increasing the intensity of visual pollution. Lincoln has preserved its rural characteristics, yet one glaring omission to this aesthetic is the town's network of power and utility lines along its scenic roadways. In many other industrialized nations, utilities are almost always placed underground to save on long-term maintenance, reduce storm damage, and protect the character of cities, towns, and the countryside. Lincoln should investigate a long-term strategy for control of utility lines and, as a long-term solution, the burial of overhead utilities in scenic and historic districts and landscapes. However, burying existing overhead utilities is an expensive proposition and the utility companies rarely agree to absorb the cost.

Communication Towers. The experience of European countries shows that communications towers can be unobtrusive if thoughtfully and creatively designed and if carefully located, sized, and screened to avoid impacts on scenic landscapes and historic areas. In response to a court case that permitted the construction of a tower with no local input, Lincoln adopted a Wireless Communications Facilities Overlay District in 1997 and identified specific areas where towers would be permitted with site plan review. Although there are limits to local authority and regulations that can be superceded by federal and state dictates, continuing to craft local regulations that ensure careful location and design of communication towers will help protect the character of Lincoln's built environment and landscape.

¹⁵ Ibid.

NIGHT LIGHTING

Poorly located, glaring, overly bright exterior night lighting can undermine the rural character of a town. Excessive and intrusive lighting detracts from the beauty of the night sky and the woodlands landscape, as well as the privacy and comfort of adjoining residences. A desire for participation in the national Dark Sky Initiative was identified in the Heritage Landscape Inventory Program's *Lincoln Reconnaissance Report* (2006).¹⁶ Strengthening and clarifying Lincoln's existing exterior lighting regulations and standards with greater specificity may ease tensions around interpretations and enforcement. Mounting a public education campaign about new non-light polluting exterior fixtures will also help to reduce this problem in the future.

Lincoln may want to revisit its established assumptions about density and land use, and use targeted zones of increased density to increase housing diversity, lessen pressures on open space, and create and reinforce the viability of Lincoln's commercial center. The key will be to incorporate the principles of smart growth without undermining Lincoln's rural character.

Sustainable Development

In an era of heightened sensitivity about global warming and man-made impacts on the natural environment, Lincoln and its residents are presently focusing on adopting sustainable development practices. Sustainable development is a very broad term, and not everyone interprets it the same way. One of the most widely accepted definitions is from the World Commission on Environment and Development's 1987 report entitled *Our Common Future*. The report states that sustainable development is development that "meets the needs of the present generation without compromising the ability of future generations to meet their own needs."¹⁷ Sustainable development is an umbrella term that covers many issues from energy independence to food security to endangered species to pollution. Some sustainable development issues cannot be addressed at a local level. However, there are many ways sustainable development can be practiced within smaller communities such as Lincoln.

- ❖ **Green Building Programs.** "Green buildings" is a commonly used term for buildings that help to protect the environment by meeting environmental and energy performance standards. The criteria range from construction materials to designing buildings for energy efficiency and water conservation, landscaping practices, the siting and orientation of buildings, and building projects that involve reuse and infill development over new construction on vacant land.
- ❖ **Smart Growth.** The term "smart growth" has become common in discussions about future development in American communities. The smart growth movement was spurred by the collective realization that the typical development pattern of isolated land uses and low-density development serviced solely by the automobile – which many identify as "sprawl" – poses acute economic, aesthetic, environmental, and social costs on communities and households, and is, in short, unsustainable. Smart growth presents an alternative pattern that focuses new growth in already established or otherwise appropriate areas and steers development away from undisturbed land or important natural and cultural resources. Smart growth also promotes a form of development that is more compact than conventional development, is mixed-use, and is well-connected to

¹⁶ Massachusetts Department of Conservation and Recreation, *Lincoln Reconnaissance Report: Freedom's Way Landscape Inventory* (June 2006), 9.

¹⁷ UN Documents Cooperation Circles: Gathering a Body of Global Agreements, *Our Common Future, From One Earth to One World*, "An Overview by the World Commission on Environment and Development," <http://www.un-documents.net/wced-ocf.htm> [accessed 25 November 2008].

other areas by alternative forms of transportation, notably transit and pedestrian facilities. Some Lincoln residents refer to smart growth as “smart evolution.”

Lincoln is renowned for its innovative approaches to planning for and protecting open space. While increasing density is a principal of smart growth, the increase in density can serve several purposes: the preservation of open space in other areas, the creation of livable, walkable community centers, the avoidance of traditional suburban patterns, and the creation of more diverse housing options for residents in a way that minimizes impacts and enhances quality of life. These objectives of smart growth suggest that Lincoln may want to revisit its established assumptions about density and land use, and use targeted zones of increased density to increase housing diversity, lessen pressures on open space, and create and reinforce the viability of Lincoln’s commercial center.

Efforts to allow an increase in density may be as controversial in Lincoln as in many other communities in Eastern Massachusetts. Still, the town has recognized controlled density as a tool for preserving threatened land and resource areas and for meeting other community planning objectives. Many years ago, Lincoln recognized South Lincoln as an area that could absorb more growth by zoning a portion of it as the R-4 Planned Community Development District (Lincoln Woods), adjacent to the B-1 retail and B-2 service business districts. More recently, Lincoln established the South Lincoln Overlay District as an umbrella for planned development districts, and also created the first planned development district in South Lincoln for redevelopment of the Mall at Lincoln Station. Allowing more compact development and a wider variety of uses, and a wider variety of sizes and types of housing, may require Lincoln to create additional planned development districts in South Lincoln in the future. The key will be to incorporate the principles of smart growth without undermining Lincoln’s rural character.

GOALS & RECOMMENDATIONS

Goal BE-1. Preserve key aspects of Lincoln’s rural roots and agricultural heritage, its varied architecture, and the prominence of its natural land formations.

- BE-1.1. Update, clarify, and strengthen Lincoln’s regulations and review procedures governing demolition and renovation requiring significant demolition.
- BE-1.2. Encourage the creation of Neighborhood Conservation Districts in appropriate areas.
- BE-1.3. Expand protection of scenic roadways, vistas from roadways, and other elements that enhance the character of a rural and agrarian environment.
- BE-1.4. Encourage owners of private property with historic or scenic vistas to keep the view open and visible to the public.

DISCUSSION

Lincoln’s longstanding culture of thoughtful planning has resulted in a community that retains much of its historic rural character. However, the town’s desirability and the resulting development pressures are threatening this character. Building demolition and inappropriate construction adjacent to conservation lands and along scenic roadways are affecting the visual character of the town. While Lincoln has adopted many of the protective regulations available to communities, in some cases its regulations need to be reviewed and strengthened.

Demolition. The modest housing that still stands in Lincoln is often viewed as obsolete by contemporary standards and is frequently threatened by demolition to make way for larger homes. Lincoln has adopted a

demolition delay bylaw, but the review process applies only to buildings deemed historically or architecturally significant by the Lincoln Historical Commission (LHC). Moreover, like most demolition delay bylaws, Lincoln's does not address the size, style, or placement of the new structure. A review of existing regulations and review procedures might consider Lincoln's primary concerns about teardowns: is it the loss of the building or the appropriateness of what is built afterward and its effect of the surrounding area? If protecting and preserving the existing structures is Lincoln's primary concern, the town may consider clarifying or changing the criteria that determine whether a demolition permit will be granted. To do this, Lincoln will need to think about the buildings with architectural or cultural significance that have been lost, and how the current criteria provide a loophole for that type of building or structure. However, if the town is concerned primarily with the form and appearance of new structures, these issues are best addressed in other recommendations discussed below, such as creating a Visual Preference Guide (VPG) or modifying the review criteria and review process for new development.

Neighborhood Conservation Districts. Lincoln has designated four historic districts under its local historic district bylaw. While this is an important tool for protecting historic structures from inappropriate alterations and demolition, Lincoln has areas that merit protection but not necessarily at the level of a local historic district. The Neighborhood Conservation District (NCD) bylaw may be a better alternative for preserving rural character in many parts of the town. Furthermore, this type of district allows review of landscape features, which play a prominent role in so many of Lincoln's neighborhoods. Designating Brown's Wood will be an important first step in encouraging other neighborhoods to consider this alternative preservation tool. Community education and outreach on the benefits and importance of NCDs will be critical for building support within neighborhoods. The experience of other communities that have successfully designated NCDs could be explored.

Scenic Roads and Vistas. Lincoln's ability to preserve the character of its scenic roadways and adjoining vistas is limited under the present Scenic Roads bylaw. This is largely due to weaknesses in state law. However, Lincoln could take steps to strengthen the Scenic Roads bylaw by adopting administrative regulations with documentation and design criteria, ideally based on the Lincoln Garden Club's recently published *Report on Lincoln's Roadsides*. Furthermore, creating scenic road overlay (zoning) districts along specific streets would help to protect character-defining features located outside of the right of way (and therefore exempt from the Scenic Roads bylaw). Several Massachusetts communities have adopted scenic overlay districts, which typically include all land within a specified distance from the centerline of the road. Within these districts, all new construction and non-agricultural land disturbances – such as driveways – require site plan review, which in turn is governed by a series of design and scenic preservation review criteria. Educational initiatives to promote Lincoln's scenic vistas would also help to encourage stewardship of these important rural features. Of course, Lincoln should continue its efforts to acquire conservation restrictions and focus on landowners whose properties contribute to the town's inventory of scenic views.

Goal BE-2. Preserve rural character achieved by recent public and private efforts in Lincoln to conserve open space and to place land in permanent conservation.

- BE-2.1. Increase non-disturbance setbacks on lots contiguous to Lincoln's conservations lands.
- BE-2.2. Consider establishing scenic overlay districts as a means to protect land features bordering conservation lands.
- BE-2.3. Require site plan review by the Planning Board of any development on lots contiguous to Lincoln's conservations lands.

DISCUSSION

Lincoln has a long and successful history of preserving its open lands. However, this success has had unintended consequences. The scenic quality of Lincoln has made it one of the most desirable communities in the Commonwealth. Many are drawn to Lincoln's rural ambiance and most particularly to its open spaces. Pressure to construct new homes with views over the town's conservation land has increased, resulting in significant visual impacts on the very areas that residents appreciate – and often, areas that were acquired and protected at taxpayer expense. Reviewing Lincoln's existing regulations to identify ways to strengthen them with new conservation zoning tools will be critical for ensuring the protection of Lincoln's rural character in the future.

- ❖ **Conservation Overlay Districts.** Lincoln could create a special overlay district for open spaces that meet criteria specified in the zoning bylaw. In the dimensional regulations of other zoning districts, the town could establish a deeper minimum setback requirement and place limits on the size of accessory structures abutting the conservation overlay district.
- ❖ **Scenic Overlay Districts.** As noted above, Lincoln could consider creating protective overlay districts for scenic roads or viewsheds. These districts would supplement the regulations of the underlying zoning district for road corridors determined to have significant views, development patterns, or roadway characteristics that are deemed worthy of protection. The *Lincoln Reconnaissance Report*, prepared by the Massachusetts Heritage Landscape Inventory Program, recommended that Lincoln examine the use of overlay districts as a means to protect land features bordering conservation lands. This study and other recent reports such as the Lincoln Garden Club's *Report on Lincoln's Roadsides* offer relevant recommendations that support the goal of preserving Lincoln's rural character.
- ❖ **Site Plan Review.** To better control the integration of new development and significant redevelopment adjacent to existing conservation lands, Lincoln might consider amending its site plan review criteria to include a review of the relationship of new structures to adjacent open space or conservation land. It might also consider providing greater clarity and definition as to what constitutes significant redevelopment.

Goal BE-3. Encourage new structures to fit within the landscape and to respect Lincoln's unique New England character.

- BE-3.1. Create a Visual Preference Guide that articulates and illustrates key visual characteristics and preferred building-to-land relationships as an aide to residents, homebuilders, and developers.
- BE-3.2. Review the Zoning Bylaw and remove regulatory barriers to allowing buildings to conform to the landforms, particularly with respect to overall height on sloped sites.
- BE-3.3. Strengthen regulations that govern massing, scale, and issues of adjacency of principal and accessory structures to ensure they fit within context of surrounding neighborhoods.
- BE-3.4. Support educational programs sponsored by local organizations that work to protect the town's identity.

DISCUSSION

Visual Preference Guide. A Visual Preference Guide (VPG) could be a useful tool for articulating Lincoln's preferred development form and style to developers and homeowners. A VPG incorporates graphics as well as text and represents a variety of building forms. It would be used by property owners, developers, homebuilders, town staff, and boards with permitting authority, and ultimately the VPG would have to be integrated within

Lincoln's development review process. Creating a VPG requires careful consideration. Below are some issues and choices to consider:

- ❖ **Process.** Since much of the content of a VPG deals with issues of aesthetics, differing opinions about preferred development form and style could potentially cause problems for the eventual acceptance of the document. The process for creating a VPG needs to include soliciting ideas from many stakeholders. This is especially true for those who will use the document, including town departments, local developers and homebuilders, and homeowners. Lincoln may want to consider forming a committee that includes as many stakeholders as possible to guide the development of the document.
- ❖ **Form, Content, and Document Creation.** A VPG can take many forms: a simple brochure, a book, or a CD, or even a website. The form of the document is closely related to the content. A VPG can use photographs, drawings, text, or all of the above to communicate design concepts. Lincoln could create a purely visual document, using photographs organized thematically and displayed as a book or electronic document. Alternatively, the town could create a bound document with photos, other graphics, and text to explain concepts more formally. The content Lincoln chooses to include will also influence another important decision: the author of the document. A VPG could be created by volunteers, perhaps organized by a core committee of authors and guided by an advisory committee. Some tasks could be assigned to a consultant, too, such as production of architectural drawings and other graphics, and text to explain design concepts. These products could be assembled and organized by a core committee. A final option is to hire consultants to create the entire document, maintaining an advisory committee to ensure that the product is representative of Lincoln and its preferred aesthetic.
- ❖ **Implementation & Authority.** Creators of the VPG will need to determine how the document will fit into Lincoln's development review process. For example, the VPG could function as a purely informational document that developers and homeowners receive before they apply for permits. The purpose of this kind of document would be to communicate preferred outcomes of development projects, and rely on the willingness of the developer to integrate them into a project. If Lincoln wanted to use the VPG in a more formal way, the town would need to consider amending its site plan review bylaw or, at the very least, the Big House Bylaw. Another way to integrate the VPG into the development review process involves establishing a Design Review Board to review projects according to the VPG, which would serve as design guidelines, and to advise and make recommendations to the Planning Board.
- ❖ **Supporting Strategies.** In addition to developing a VPG, Lincoln could amend the site plan review bylaw by adding criteria that determine whether new construction (including accessory structures) is visually and environmentally responsive to its surrounding landscape. Reviewing the Zoning Bylaw for impediments to designing buildings that conform to landforms, e.g., how maximum building height is measured on sloped sites, guidelines or review criteria for building placement and orientation, setbacks for principal and accessory structures, and regulating the scale of accessory structures will be important for ensuring that new structures do not create a visually discordant impact on Lincoln's rural landscapes.
- ❖ **Public Education.** Adopting regulatory tools in concert with public education would further strengthen Lincoln's efforts to protect its rural character. Continuing and expanding existing educational endeavors, such as the Lincoln Garden Club's lectures and workshops on preserving the town's stone walls and FOMA's walking tours of Lincoln's mid-century architecture, would foster awareness and appreciation of the built environment. In addition, completing a comprehensive town-wide historic resources inventory would

enhance Lincoln's ability to identify and protect its historic structures and landscapes. Integrating the inventory with the town's GIS maps would provide an invaluable tool during the development review process.¹⁸

Goal BE-4. Encourage environmentally sensitive building and landscape practices for all future development and significant redevelopment.

- BE-4.1. Consider incorporating energy and environmental performance standards in Lincoln's development regulations.
- BE-4.2. Increase public outreach and access to information about environmentally responsible design, using the town's website, newspaper articles, coordination with groups that sponsor public education programs, and other means.
- BE-4.3. Encourage higher-density development in designated areas, such as the Lincoln Station area, to preserve open space elsewhere.

DISCUSSION

Lincoln is renowned for its long history of innovative techniques to protect open space. Today, Lincoln needs to focus on innovative techniques to encourage sustainable development. There are several opportunities to incorporate energy and environmental performance standards in Lincoln's development regulations. Consulting with other communities could help to identify the right standards for Lincoln because the town may be able to benefit from the successes and failures experienced elsewhere.

Leadership in Energy and Environmental Design (LEED) is a program of the U.S. Green Building Council, a non-profit industry consortium founded in 1993. LEED publishes environmental and energy performance standards for new construction and reconstruction projects. A number of Massachusetts cities and towns have established environmental standards or guidelines for buildings, sometimes by adopting LEED. Normally the standards are voluntary, but special permit approval for larger-scale projects sometimes requires evidence that a project meets or will meet all or as many applicable LEED standards as possible. Until recently, LEED applied only to commercial, industrial, mixed use and multifamily developments. In January 2008, LEED published a "LEED for Homes" rating system tailored to single-family dwellings. The rating system provides points for eight review criteria, and depending on the number of points assigned under each criterion, a home may be eligible for a basic certification or a silver, gold, or platinum certification:

- ❖ Innovation and design process
- ❖ Location and linkages
- ❖ Sustainable sites
- ❖ Water efficiency
- ❖ Energy and atmosphere
- ❖ Materials and resources

¹⁸ See also, Chapter 4, Cultural & Historic Resources.

- ❖ Indoor environmental quality
- ❖ Awareness and education

Lincoln may want to decide whether to require or encourage applicants to incorporate “green” features in their projects: single-family homes, which represent the vast majority of buildings constructed in the town, or other types of buildings, such as commercial or multifamily. While a basic level of LEED single-family home certification does not seem to impose onerous demands on homebuilders, the town should consult with builders who typically work in Lincoln in order to understand the impact from their point of view. Further, since LEED standards are industry-driven, they may not meet Lincoln’s expectations. Owing to intensive marketing by the U.S. Green Buildings Council, LEED has been successfully “branded” as the nation’s green buildings initiative. It is so common to fuse “LEED” with “green buildings” that LEED is almost a form of monopoly. With this in mind, town officials – such as the Conservation Commission, the Planning Board, and the Building Inspector – may want to review LEED standards for single-family homes and consider whether they are the best approach for Lincoln.

Some LEED standards could work to Lincoln’s advantage as the town seeks to reduce the use of chemical pesticides and herbicides, too. For example, one of the “prerequisite” LEED standards for basic single-family home certification is the exclusion of invasive plantings from landscaping plans. Additional points can be gained for other landscaping features that conserve water. Some of the standards used to rate building design and construction could add to the cost of a home, and this may lead to unintended consequences for other goals of the Comprehensive Plan. It may be appropriate to consider applying many LEED standards to homes that have to comply with the Big House Bylaw, but limit the types of standards that apply to smaller dwelling units, small renovation projects, or small, one- to four-unit buildings that include affordable housing. An advantage to this approach is that Lincoln already has an established review process under the Big House Bylaw, and layers of permitting procedures need to be considered. However, any decision to mandate environmental and energy performance standards for single-family homes should be reviewed with the Building Inspector and Town Counsel in order to determine whether the requirements would exceed local authority under the State Building Code.

In communities with a design review bylaw or design review criteria built into the process for site plan approval, design review committees and architects have sometimes found it difficult to make LEED or “LEED-like” building standards compatible with the community’s design guidelines. It is important to note that since there is far more experience with green building standards for nonresidential and multifamily construction than single-family homes, conflicts between some of the rating criteria for environmental and energy performance and the criteria for design review have surfaced with these kinds of developments. Lincoln does not see much nonresidential or multifamily activity, but the town hopes to attract some additional commercial space and housing in the South Lincoln village area. The implications of requiring or encouraging proponents to address LEED standards will need to be considered for each type of project.

Incorporating green building standards within the town’s regulatory review process should be part of the larger effort to preserve the character of Lincoln. Site design that is sympathetic to existing landscape features and natural resources, utilization of sustainable building material, and energy efficient systems are all features that should be encouraged for new construction. Furthermore, promoting “smart evolution” that encourages development to locate in already established areas, such as South Lincoln, away from undisturbed areas would also protect the town’s natural resources.