4. Village Development

DETAILED TECHNICAL ANALYSIS

CASE STUDY
The Fields of St. Croix, Lake Elmo, Minnesota
see Section 4.8

MODEL ORDINANCE
see Section 4.9

In the Hartford region, as in many metropolitan areas throughout the United States, low-density sprawl is the predominant pattern of development. Sprawl is not just confined to the areas immediately around the city core. Residential subdivisions and commercial development now spread from downtown Hartford to as far away as Suffield and Tolland, encroaching upon former farms and woodland areas.

The theoretical solution to rural sprawl is simple: concentrate development on smaller lots in higher-density, mixed-use, pedestrian-oriented villages and preserve the remaining areas as open space. Yet complications arise. The creation of higher-density environments in rural areas is limited by the lack of public utilities, particularly water and sewer. Mixed-use development is limited by current market trends, zoning regulations, and established development patterns of separated uses. The creation of pedestrian-oriented development is impeded by the emphasis on automobile circulation.

This chapter specifically addresses the question of how to achieve the higher densities and mix of uses that characterize rural villages. Such village-style development — whether built off of historic hamlets or newly constructed "from scratch" — is a key component of smart growth, as it can reduce the loss of open space, create communities of character, and reduce auto-dependency. One of the main issues addressed in this chapter is how to achieve higher-density development in suburban and rural areas that lack sewer infrastructure. Issues of building scale, orientation, design, and character — which also contribute to a village setting — are discussed in Chapter 6.

4.1 SMART GROWTH REGULATIONS AND INCENTIVES

Compact, mixed-use, pedestrian-oriented development with a surrounding greenbelt and/or park amenities is the hallmark of village development. As shown in the diagram on page 4-3, village development calls for the reorganization of sprawling, auto-oriented land uses into pedestrian-oriented nodes. Village development is also distinct from cluster development. Clustering results in pockets of development, which may help protect open space areas, but which nevertheless follows an auto-oriented pattern of development. Village development creates a larger cluster, where stores, offices, houses, townhouses, and apartments are found in a concentrated node, with large areas of open space surrounding the village. Zoning changes are necessary to ensure village development patterns can be achieved.

CREATING HIGHER DENSITY DEVELOPMENT

Rural villages vary widely in density, but they invariably have greater densities than typical residential subdivisions. The literature on "cluster" development provides some insights into the development of higher density environments in rural areas. Rather than creating a village (with a mix of shops, apartments, offices, and houses), cluster development is essentially the same as a typical residential subdivision, except that houses are clustered in small groups on

limited portions of the property, and the remaining land area is set aside as an open space preserve.

Cluster development is not a new idea. The grandfather of cluster development was Radburn, New Jersey, which was designed by Clarence Stein and Henry Wright and conceived between 1927 and 1931. Houses were clustered in small pockets around an interconnected network of parks and walking paths.[1] Based on the Radburn model, clustering around golf courses and other shared amenities became a common development practice as new subdivisions were built after WWII. In the late 1970's clustering gained more favor as a tool to address the joint problems of disappearing open space and environmental degradation. Examples of successful cluster projects in Connecticut include Long Hill Farm in Guilford and Strathmore Farms in Madison.[2]

Coping with Wastewater

One of the greatest potential obstacles encountered by village development in suburban and rural areas is how to cope with wastewater disposal. Typically, new residential subdivisions are outfitted with individual septic systems on each residential site. Lot sizes of one to two acres or more are necessary to accommodate those individual systems. If lot sizes are any smaller, as they would be in a cluster or village development, an alternative method is needed for wastewater disposal.

Aside from public sewer systems and individual septic systems, the most common alternative method of wastewater treatment and disposal consists of a package treatment plant. A package treatment plant is a smaller version of a sewage treatment plant. A package plant collects sewage from on-site sources, treats the sewage, and then discharges the sewage into an adjacent body of water. Package treatment plants can be beneficial from a regional perspective, in that they divert some effluent from the sewer system, reducing the pressure to expand the system in the future.

In recent years, there has been a great deal of research and experimentation in alternative methods of wastewater disposal. The initial results have been promising. As discussed in Section 4.8, for example, the Fields of St. Croix has a cutting-edge "constructed wetlands" system. C*ommon-Area Septic Easements* are another innovation that has particular relevance for Village development. Rather than placing septic tanks and leeching fields on individual lots (as in a conventional subdivision), the tank and field are placed in the common open space areas. Each lot has ownership over a septic easement in the open space area that serves the lot. Alternatively, the septic tank and field collect the effluent of several adjacent lots, with the owners of the adjacent lots sharing the use and responsibility for upkeep.

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[1] Randall Arendt, et al., *Rural by Design: Maintaining Small Town Character*, Chicago: American Planning Association, 1994; pp. 318-321.

[2] Randall Arendt, et al., *Rural by Design: Maintaining Small Town Character*, Chicago: American Planning Association, 1994; pp. 333-335 and 339-341.

Diagram

Preserving Open Space

For village development to be effective, higher-density development must be balanced with adjacent open space conservation and park amenities. This is true not only from the standpoint of utilities and environmental conservation (open space areas may be needed as septic fields, stormwater drainage areas, and preservation of wetlands and other natural areas), but also from the point of view of aesthetics, recreation, and circulation. Again, the experience with cluster development provides a point of reference.

In some cluster development sites, preserved open space areas often have been comprised of the undesirable or unusable left-over space that remains after all the best land is carved out for private lots. These open space pockets are often disjointed, inaccessible, and poorly planned, making use difficult or unappealing. The most successful cluster projects — like Radburn, New Jersey — have accessible, useable, and well-designed common areas that serve as the focal point of the neighborhood.

A "conservation subdivision" — the next generation of cluster development — is intended to resolve this problem by making conservation and open space planning the primary focus of the subdivision process and forcing development to be situated around the priority open space areas. Randall Arendt, the guru of the conservation subdivision, recommends a four-step approach for designing subdivisions with a focus on conservation.[3] Arendt applies principles of landscape architecture to create environmentally and visually sensitive subdivisions. The four steps are as follows:

1. *Identify all potential conservation areas*. Areas to be protected should include sensitive environmental areas (wetlands, floodplains, stream corridors, steep slopes), as well as areas with historic, cultural, or scenic value. Other unique features, such as mature woodlands and open meadows and fields, could also be included in the conservation areas.
2. *Locate house sites*. Because the residential lot may have a reduced value as a result of a smaller size, the idea is to compensate for that loss by providing each house with proximity to and/or a view of adjacent open space areas that are permanently protected. The added amenity would add back to the value of the house.
3. *Design street alignments and trails*. Streets obviously need to link house locations to major streets, but in addition, street designs should be used to show off the open space preserves. Curving streets with vistas of open space areas are recommended, as are single-loaded streets with housing on one side and an open meadow on the other side. Dead-end streets should be minimized, and connecting streets encouraged in order to create the sense of an integrated neighborhood.
4. *Draw in the lot lines*. Step 4 is simply a formality used to consecrate the careful conservation and development decisions made in Steps 1 through 3 above. This is in distinct contrast to the approach to a conventional subdivision, in which the drawing of the lots lines drives the whole process.

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[3] Randall Arendt, *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks*, Washington, D.C.: Island Press, 1996.

This unique approach to cluster development provides insight into village development. Higher-density village development, to be most successful, must be balanced with open space preservation and park development. This "conservation" approach provides a means by which large areas of land can be carefully transformed into a village environment with a balance of developed areas and open space.

CREATING MIXED-USE DEVELOPMENT

Mixed use is a critical component of village development. Having a mix of offices, shops, and institutions near residences departs from the concept of a conventional bedroom community and provides the possibility for activity throughout the day within the neighborhood. Places where mixed uses are combined with pedestrian-oriented design can draw people out of their cars and eventually grow into community centers with a unique sense of identity.

Office or retail uses in the village center would serve a different market and offer a different range of goods and services than office parks and shopping centers. Whereas office parks and shopping centers would serve a population living within several miles, the village center would primarily serve the immediate neighborhood. That is, a mixed-use village center would not directly compete with office parks or shopping centers, or vice versa. The types of offices that would be suited for a village center would be small-scale doctor's offices, realtors, accountants, and other small operations, whereas office parks serve larger corporate users. The shops that would be likely to gravitate toward a village center would be specialty stores (typically non-chain stores selling unique items like antiques, jewelry, crafts) and restaurants.

Zoning regulations should reinforce this natural market trend by permitting small-scale offices and stores that are compatible with neighboring residences, while prohibiting large-scale retail development and office campuses. The following types of mixed-use development can be permitted in village districts:

- *Mixed-use neighborhoods*. In rural towns, the predominant low-density pattern of development would tend to make mixed-use buildings (typically built at higher densities) less marketable. However, mixed-used neighborhoods would still be possible. That is, each lot would have only one primary use, but there would be a variety of uses within the neighborhood as a whole.[4]
- *Mixed-use buildings*. In compact traditional villages, buildings often have more than one use. A typical permutation that appears in traditional village settings is the corner store with apartments or offices on the second floor. This compact design helps to encourage pedestrian activity within the village.
- *Home occupations*. Similar to mixed-use buildings, another way to achieve mixed-use on a more limited scale is to allow residences to have a home office or other small business (e.g., artist studio) within the house itself or in the garage. A home occupation is used primarily by the resident of the premises, even though there are two uses on the site, thus requiring little additional parking or infrastructure. In contrast, a traditional mixed-use building would have different occupants in different parts of the building.

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[4] American Planning Association, *Planning Advisory Service Report Number 479: The Principles of Smart Development*, Chicago: American Planning Association, 1998, pp. 30-32.

Some of the most successful examples of mixed-use village development were designed as master-planned communities. Vermillion, North Carolina is a new community designed by the architectural firm of Duany Plater-Zyberk (DPZ), which was designed according to the firm's established principles of TND (see Chapter 6). What is so distinctive about Vermillion is that it was designed to have a variety of land uses that are compatible with a residential neighborhood. At the center of the community is a public square, lined with townhouses, a few restaurants, a convenience store, small offices, and live/work units. Lower-density houses are found beyond the square. This limited mix of uses is just enough to provide some essential services, allowing residents to walk rather than drive and lending the town center an air of vitality.[5]

4.2 COMPLEMENTARY ACTIONS

TRADITIONAL NEIGHBORHOOD DESIGN

Although higher-density, mixed-use developments are critical components of village development, they are not sufficient. Attention to design is necessary as well. Traditional Neighborhood Design (TND) can help weave together the compact development and land-use mix into a coherent village setting with a unique character and sense of place. The key characteristic of TND is that buildings are primarily oriented to pedestrians and transit, with automobiles playing a supporting role. TND also pays a great deal of attention to the design of public streets, buildings, and plazas, which are intended to serve as identifiable community centers that provide opportunities for socializing with neighbors. These design strategies are discussed in greater detail in Chapter 6.

VILLAGE DISTRICT DESIGNATION

Connecticut's *Village Districts* law, adopted in 1998, primarily addresses aesthetics in existing hamlet centers. With the creation of a village district, a town is able to "protect the distinctive character, landscape, and historic structures" within the district. According to the regulations, new development or alterations within a village district are required to be "harmoniously related to their surroundings, and the terrain in the district, and to the use, scale, and architecture of existing buildings in the district." Also, "all applications for new construction and substantial reconstruction … shall be subject to review and recommendation by an architect or architectural firm, landscape architect, or planner."[6]

Although "use" is mentioned in the quotation above, the emphasis of the law is clearly upon design, with its requirement for architectural review. So far, in the towns where village districts have been adopted (most notably Greenwich and Middletown), the law has been implemented in such a way as to focus on the design aspects of village development. In Middletown, for example, the village district adopted in 1999 encompassed nine blocks of mixed-use buildings located between Wesleyan University and Main Street. Proposed development in the district is subject to review by a seven-member Design Review Board

[5] Bowman Development Group, *Welcome to Vermillion, North Carolina*, <www.vermillion-tnd.com>, visited September 28, 2001.

[6] Connecticut General Statutes, § 8-2.

composed of architects, historians, and builders. However, despite the existing mix of uses in the village district, the underlying zoning still permits only development of single-family and two-family housing.[7] This suggests that to create a complete village environment, the creation of a village district under Connecticut law is not enough. Because of the focus on design, the *Village Districts* law is discussed more extensively in Chapter 6.

HOMEOWNER'S ASSOCIATIONS

One of the recommendations in Section 4.1 is to balance village development with open space conservation. In any development where portions of the site have been set aside as open space, common open space areas require ongoing maintenance. Dedication of open space to the municipality may not be preferable, because it burdens the local government with the cost and hassle of maintenance. A homeowner's association can be used to take over the responsibility of maintaining open space areas, as well as any wastewater facilities.

There are certain drawbacks associated with homeowner's associations. First, because the resulting open space is not public land, public access would be limited, and the potential for recreational use of the open space area by the community is limited. Second, some towns have encountered problems with homeowner's associations that lack accountability. Most associations are organized in a *corporate* model, with a board of directors that makes all decisions for the neighborhood. Although homeowners are able to elect their representatives on the board, the discussions and decisions of the board are not open to public debate, and the local government can do little to address problems in maintenance or operation of open space areas or utilities. A *civic* model is a preferable organizational structure for the homeowner's association. In this model, the association would have the equivalent of a Mayor and Council, who would balance and check each other's authority in a public forum.[8]

INCENTIVES

When cluster development is voluntary, it is rarely used. Often there is the perception among developers that the creation of smaller lots would reduce the desirability and thus the sale price of those lots. (Strategies for counteracting this perception are outlined in Section 4.4.) Rather than requiring clustered development, another option is to establish density incentives. For example, if a rural area were zoned for two-acre lots normally, yielding five lots on a 10-acre parcel, then the village option would allow six or more units to be built.

The experience with density incentives has been mixed. Developers typically do not respond to incentives unless they are quite large and the demand for new development is particularly strong. In Concord, Massachusetts, for example, only a few development projects over the course of 20 years took advantage of the cluster density bonus. Large incentives, however, cannot be offered unless the base zoning is quite low at the start of the process, lest the density bonus compromise the very objective of open space conservation.

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[7] Ryan Jockers, "Towns Call Village District Status a Success," *Greenwich Time Online*, May 28, 2000, <www.greenwichtime.com/Greenwich/release/05-28-2000/article1.html>, visited September 28, 2001.

[8] Randall Arendt, et al., *Rural by Design: Maintaining Small Town Character*, Chicago: American Planning Association, 1994; p. 405.

An alternative to the use of density bonuses is the use of a density "penalty". Under this system, a developer would be required to cluster in order to use the full development allotment possible under the zoning code. Building off the example above, the developer would be allowed to build five units (the total yield of the base two-acre zoning) *only if* a cluster design were implemented. If clustering were not utilized, then the minimum lot size would be increased, reducing the total yield. For instance, if the minimum lot size were increased to five acres under the non-cluster design, then the total yield would be reduced from five units to two units.[9]

RESTRICTIONS ON MIXED USES

Wherever different land uses are mixed in a given area, there is the potential for one use to negatively impact other adjacent uses. Residential uses are particularly sensitive to the impacts of adjacent commercial operations, such as noise, glare, exhaust, and visual blight. Villages should specifically prohibit land uses that would be incompatible with residential uses, such as heavy industry and big-box commercial development. However, some small-scale operations (home designer shops, professional offices, artist lofts) may be acceptable, provided that their impacts can be managed through one or more complementary zoning provisions, such as the following:

- Shops, offices, and their parking and loading areas can be buffered from adjacent resident areas through additional setbacks and landscaping.
- Hours of operation can be restricted for such shops and offices, so that they are not in business when residents are expecting quiet time (i.e., nighttime and early morning).
- Shops, offices, and home occupations should be subject to specific performance standards. Outdoor storage should be prohibited; the size of detached buildings (for storage or other use) should be limited; signs should be limited in size and number; on-site parking should be limited; and on-site production or shipping activities should be subject to stringent standards for noise, emissions, and glare. These provisions would help ensure that non-residential uses fit into the predominantly residential environment.

4.3 FISCAL AND ECONOMIC IMPACTS

SMALLER LOTS

The evidence to date shows that homes in conservation subdivisions (where higher-density clusters are surrounded by permanent open space) not only maintain their value, but may actually sell at a premium. Their location next to open space or their views of open space compensate for the lower value that may be associated with a smaller lot. Also, the presence of and attractiveness of the open space areas serve as marketing tools for perspective buyers.

There have been a number of successful village development projects nationally. One of the best examples is the Garnet Oaks project in Bethel Township, Delaware County,

[9] Randall Arendt, et al., *Rural by Design: Maintaining Small Town Character*, Chicago: American Planning Association, 1994; pp. 229-231.

Pennsylvania, a 58-acre site with approximately 80 units on clustered 1/4-acre lots. Reports from the time of sales indicated that all lots experienced an increased absorption rate and that the lots located immediately adjacent to the open space conservation areas sold at a premium.[10] After two years, average home prices reportedly increased by $24,000 from the original base asking price (approximately $200,000 to $220,000).[11]

Indeed, village development is becoming a hot development trend nationwide. As of November 2001, the *New Urban News* found that there were 213 neighborhood-scale projects nationwide, of which 133 were found in rural or greenfield areas. This trend demonstrates the strength of the profitability for housing types and living environments different from conventional subdivisions.[12]

Not only can village development be extremely successful in the marketplace, but also, village development can be more cost-effective for developers. Because of the more limited roadway and utility network required for a compact development project, construction costs per unit are typically lower.

WASTEWATER DISPOSAL

It is unclear whether package treatment plants or collective septic systems would have any negative impact on property values. Theoretically, it is reasonable to assume that collective septic systems would create no greater impact on property values than individual septic systems. They function entirely in the same way. Although a collective septic system would have basic maintenance costs, they would not presumably be any higher than for an individual system.

Package plants, however, could have a downward impact on property values for two reasons. First, the technology of a package plant, while smaller in scale than a sewage treatment plant, would be similar in its basic function and would require greater and more costly maintenance than a septic system. Second, package plants typically discharge treated wastewater into a surface body of water, potentially resulting in soil or water contamination, or emitting odor. These impacts could exert negative pressure on property values.

MIX OF USES

As discussed in the previous section, wherever different uses are mixed, there is the potential for incompatibility. If impacts from retail and office uses are egregious enough, they could have a negative impact on adjacent residential sites. The mixed-use restrictions discussed in Section 4.2 are intended to avoid this type of impact.

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[10] Natural Lands Trust, *Growing Greener: Putting Conservation into Local Codes*, Media, Pennsylvania: Natural Lands Trust, November 1997, pp. 16-17.

[11] National Association of Home Builders, *Examples of Smart Growth: Garnet Oaks*, <www.nahb.com/smartexamples/garnet.htm>, visited September 25, 2001.

[12] "New Urbanist Project Construction Starts Soar," *New Urban News*, October/November 2001, <www.newurbannews.com/annualsurvey.html>, visited April 16, 2002.

4.4 IMPLEMENTATION STRATEGIES

PUBLIC EDUCATION

As noted, developers and property owners in rural areas are quite happy to accept compact development patterns as an *option*, but not as a *requirement*. Their concern is that by complicating wastewater disposal and eliminating conventional lot sizes (which definitely have a proven record), cluster development could undermine sale prices and absorption rates. To make village development more palatable, towns and regional entities like CRCOG should endeavor to educate developers and property owners about its merits.

There have been many successful public education projects nationwide on the topics of "livable communities" and smart growth. One notable example was an initiative conducted by the Local Government Commission's (LGC) Center for Livable Communities, a nonprofit organization of local elected officials and staff, organized in 1991. The LGC formulated the *Ahwahnee Principles for More Livable Communities*, which called for the development of compact, pedestrian-oriented, transit-oriented, mixed-use, and mixed-housing neighborhoods, as an alternative to suburban sprawl. In the mid-1990s, the LGC initiated a massive public education campaign to promote the Ahwahnee Principles. The campaign included publications, conferences, workshops, guidebooks, newsletters, videos, and slide presentations, and it primarily targeted local government officials. The widely successful campaign, focused in California and Florida, helped develop support for updating local zoning ordinances in several towns to incorporate aspects of the Ahwahnee Principles. LGC's efforts received an award from the American Planning Association in 1997.[13]

Hartford region towns can use the LGC initiative as a model for a smaller-scale effort. Workshops could be a particularly useful way for developers, property owners, and local government officials to come together in a constructive way to brainstorm ideas, share concerns, develop a consensus, and identify issues of contention. If successful, the consensus developed in the workshop could serve as the spark that leads to an update of the zoning ordinance to incorporate village/cluster principles.

At a minimum, the following topics need to be addressed in the context of the public education campaign:

- *Quality-of-life advantages*. Village/cluster development saves open space, protects the environment, provides realistic alternatives to driving, and can include the development of identifiable village centers, with a variety of activities and opportunities for entertainment and social interaction.
- *Economic viability*. The campaign should also counteract fears of decreasing profits. Village/cluster development can actually reduce the costs of development by reducing infrastructure needs; it can also result in sales premiums by increasing open space and community amenities, despite the smaller lots. The total number of housing units built on the site could potentially be greater in a village format, as compared to a conventional subdivision.

[13] American Planning Association, "1997 Planning Awards: Public Education: Local Government Commission: Building Livable Communities," *Planning*, April 1997, p. 16.

- *Feasible Wastewater Disposal*. Most rural and suburban towns in the Hartford region currently rely largely upon septic systems for wastewater disposal. The education campaign must demonstrate that there are viable, affordable alternatives to on-site, single-family septic systems.

To build confidence in the concept of village development, towns should consider undertaking a demonstration project that proves that the village model can be successfully implemented. Local government can contribute funds or tax incentives to help make the project a success and to promote the project as a model for future development.

ELIMINATING RESISTANCE FROM LOCAL ZONING PROVISIONS

In some cases, developers and residents are ready to forge ahead with village development, only to find that zoning regulations are outdated and not conducive. The status quo in many zoning ordinances is to require large lots with wide setbacks, with little or no provision for more compact development patterns. Local government should eliminate these resistance factors by making use and dimensional standards more flexible in areas where village development would be preferred.

4.5 IMPLICATIONS AND RECOMMENDATIONS

Although the education process described in the previous section is a critical component of the process, there are several steps that have to take place before, during, and after the public education campaign. The following is a general outline of the overall process.

- The first step is to identify areas that could be considered for village-style development. To this end, the municipality should consider both the possibility of building off of historic village centers as well as the possibility of developing new centers in currently undeveloped or rural areas.
- The second step is to begin the process of workshops, conferences, and other public education tools to begin building consensus for village development.
- As consensus is developed, additional workshops should be held to develop a vision for the potential village sites identified in the previous step. This vision will help make the initial village conceptualization into a more concrete proposal.
- The fourth step is to craft a plan for village development that is incorporated into the town's Plan of Conservation and Development, and ultimately, to introduce zoning amendments that reflect the amendments to the town's plan.

Rural towns in the Hartford region are the most likely candidates for adopting some form of village development zoning. They are in the path of expanding sprawl development and have an opportunity to channel growth into villages. In Suffield, for example, there are two clear areas that could potentially be suited for village development — the village center near the Main Street/Bridge Street intersection and a smaller village near the intersection of Mountain Road/Grand Street. While the current zoning preserves the existing commercial core in these two villages, the surrounding areas are generally zoned for large-lot residential development. If these areas are developed under the current zoning, an auto-oriented pattern will evolve.

A village development zoning scheme can help create a different pattern of development in Suffield that deviates from the typical pattern of sprawl. Zoning that allows for compact

residential areas, interspersed with open space preserves, can be focused around the existing village centers. That same zoning can allow the flexibility of a limited mix of uses, including small offices, sit-down restaurants, small shops, and moderate-density apartments, townhouses, and single-family homes. Farther away from the village center, the existing large-lot zoning can remain intact, or a portion of those large-lot zones can be targeted for open space protection. Thus, the idea is not necessarily to eliminate *all* large-lot zoning, as there will always be some demand for it, but to provide the option of higher-density village living for those who want it.

CRCOG can also take steps at the State level to help promote village development, particularly with regard to the septic issue. The State currently has standards for individual septic systems, and the design for an individual septic system must be approved by the State's Department of Public Health (DPH) before a local municipality issues a construction permit. An individual septic system is NOT required to obtain a Ground Water Discharge Permit from the Department of Environmental Protection (DEP), unless it has a volume of 5,000 gallons per day (gpd) or more or unless it constitutes a "community sewer system".[14] This suggests that if a cluster development were to include a collective septic system or a package treatment plant, it would be subject to an additional permit process not required of a conventional subdivision, even though the total effluent from the cluster development would not necessarily be any greater.

CRCOG can help encourage village/cluster development by advocating a more level playing field between conventional and cluster subdivisions. There are two potential approaches.

- One approach is to advocate that the DEP loosen up its permit requirement for "community sewer system" and allow those collective septic systems (which serve more than one household) to be regulated by the DPH consistent with State standards. This would require the State to adopt standards for collective septic systems.
- Another approach is to require conventional subdivisions to go through the same permit requirement as a cluster subdivision with a unique wastewater disposal system. Currently, each individual house in a subdivision is treated as a separate entity, and the cumulative discharge from a subdivision is not considered. CRCOG could advocate that any subdivision whose total discharge from all individual lots would exceed the 5,000 gpd level should have to obtain a DEP permit, in addition to the DPH permits for each individual lot. In addition to creating a more level playing field between conventional and village development, there could be public health benefits.

There is a current debate in the Town of Old Saybrook regarding septic systems and sewage treatment. Many of the small cottages along the shoreline have inadequately sized or failing septic systems that risk contaminating the water table or the Sound. A proposal for a wastewater treatment plant has met with public resistance, for fear of growth-inducing impacts. The Town has approached the State to consider a pilot study of alternative discharge-to-groundwater systems, citing recent successes in Rhode Island with such systems.[15] CRCOG should support and monitor the Old Saybrook initiative.

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[14] Connecticut Department of Environmental Protection, *Permit Programs: Wastewater Discharges*, <dep.state.ct.us/pao/PERDfact/wadschrg.htm>, visited October 1, 2001.

[15] Sudhin S. Thanawala, "Small Towns Faced with Big Waste Choices," *The Hartford Courant*, July 8, 2002.

4.6 RESOURCES FOR MORE INFORMATION

REPORTS

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Regional Plan Association. *Building Livable Communities: A Community Design Handbook for Connecticut Towns*. New York: Regional Plan Association, June 1997.

Sierra Club. *Smart Choices or Sprawling Growth*. San Francisco: Sierra Club, 2000.

LIBRARIES & BOOKSELLERS

See also, NON-PROFIT ORGANIZATIONS, listed below.

Island Press: The Environmental Publisher
1718 Connecticut Avenue, NW
Suite 300
Washington, D.C. 20009-1148
Phone: (202) 232-7933
Fax: (202) 234-1328
<www.islandpress.org>

Planning Advisory Service
American Planning Association
122 S. Michigan Avenue, Suite 1600
Chicago, IL 60603
Phone: (312) 431-9100
Fax: (312) 431-9985
<www.planning.org/pas/pas.html>

NON-PROFIT ORGANIZATIONS

American Planning Association
122 S. Michigan Avenue, Suite 1600
Chicago, IL 60603
Phone: (312) 431-9100
Fax: (312) 431-9985
<www.planning.org>

Lincoln Institute of Land Policy
113 Brattle Street
Cambridge, MA 02138-3400
Phone: (617) 661-3016; (800) LAND-USE
Fax: (617) 661-7235; (800) LAND-944
<www.lincolninst.edu>

Local Government Commission
(and the Center for Livable Communities)
1414 K St, Ste 600
Sacramento, CA 95814
Phone: (916) 448-1198
Fax: (916) 448-8246
<www.lgc.org>

National Association of Home Builders
1201 15th street, NW
Washington, DC 20005
Phone: (202) 266-8200; (800) 368-5242
<www.nahb.com>

Natural Lands Trust
1031 Palmers Mill Road
Media, PA 19063
Phone: (610) 353-5587
Fax: (610) 353-0517
<www.natlands.org>

Sierra Club
85 Second Street, Second Floor
San Francisco, CA 94105
Phone: (415) 977-5500
<www.sierraclub.org>

Smart Growth Network
International City/County Management Association (ICMA)
777 North Capitol St., NE, Suite 500
Washington, DC 20002-4201
Phone: (202) 289-4262
Fax: (202) 962-3500
<www.smartgrowth.org>

Urban Land Institute (ULI)
1025 Thomas Jefferson Street, NW
Suite 500 West
Washington, DC 20007
Phone: (202) 624-7000; (800) 321-5011
Fax: (202) 624-7140
<www.uli.org>

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4.8 CASE STUDY: THE FIELDS OF ST. CROIX, LAKE ELMO, MINNESOTA

The Fields of St. Croix is a residential "conservation subdivision" located about 30 miles northeast of downtown St. Paul, Minnesota. It was planned and developed by Robert Engstrom of Minneapolis and built between 1997 and 2000. Located close to the Lake Elmo Village Center and the historic city of Stillwater, the subdivision was designed to fit in with the traditional character and natural beauty of the area, while protecting the natural resources and systems of the site.[16]

Although The Fields of St. Croix, in and of itself, is not a complete village (i.e., it does not have mixed-use), it was designed to be functionally and aesthetically related to the Lake Elmo Village Center. Moreover, as a conservation subdivision, it illustrates the challenges associated with creating higher-density development in non-sewer areas and shows one unique way in which the issue was resolved. The Fields of St. Croix is a community of character that successfully balances development and conservation and builds on the historic patterns of development in the surrounding areas.

Engstrom assembled 241 acres of land from three separate farms. Under a base zoning of six dwelling units per 20 acres, he could have built 72 houses in a conventional subdivision of three-acre lots. Instead, with a 50 percent density bonus for clustering, Engstrom built 125

[16] National Association of Home Builders, Smart Growth Resources: Project Examples. <www.nahb.net/growth_issues/project_examples/Fields_of_St_Croix/FieldsofCroix.htm>, October 11, 2001.

single-family units (113 detached, 12 attached), which collectively occupied less than 100 acres of the site, and left about 144 acres for permanent open space preservation.[17]

COMMUNITY AMENITIES AND TRADITIONAL DESIGN

Although the subdivision does not have a mix of retail or office uses (as might be found in a traditional village), other aspects of the subdivision helped to create a village environment. A Civil War-era barn on the property was restored and opened up as a community center for use by residents and local non-profit organizations. In addition, the subdivision has a large neighborhood park adjacent to residences, a pond with walking trails, an active organic farm, and a restored prairie with indigenous grasses and wildflowers. These amenities serve as small activity centers or attractions within the neighborhood.

(There are other successful examples of conservation subdivisions with limited retail and office uses that fit into a rural community. For example, in The Ponds at Woodward — a subdivision in Chester County, Pennsylvania — the old farm buildings were preserved and converted into a nursery school, a cabinetmaker's woodshop, and a gallery and retail shop.)

Design features of the Fields also contribute to the village ambiance. Homes were designed with distinctive Prairie-style or Craftsman-style architecture, evoking the character of the early 20th century, when those styles were popular and village development was the norm. Narrower lot widths and street widths were permitted, resulting in slower traffic and increasing the ability of neighbors to walk. These design strategies, which go a long way toward creating the look and feel of a village, are also discussed in Chapter 6.

WASTEWATER MANAGEMENT THROUGH "CONSTRUCTED WETLANDS"

The Fields of St. Croix is located in a semi-rural part of Minnesota, where new residential subdivisions are typically outfitted with individual septic systems. Some of the parcels on the subdivision, measuring about two acres in size, were still large enough to have on-site septic systems. However, the smaller parcels (the smallest were about 11,000 square feet) required some form of joint treatment and disposal. The solution used for these parcels was the use of an innovative "constructed wetland".

Constructed wetlands are the cutting edge of wastewater disposal techniques. They are based on the relatively simple concept that natural wetlands have always functioned as filters for polluted water. A constructed wetland is nothing more than a human-built water basin, planted with wetland vegetation, that collects and naturally filters wastewater. The vegetation in a constructed wetland is specifically chosen for its ability to assist in the biological treatment of water. The plants convert sunlight into chemical energy and transmit oxygen from their leaves to their roots. Pollution-eating microbes then colonize the oxidized areas around the root surface and convert the nitrates found in wastewater into a harmless gas.[18]

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[17] Natural Lands Trust, *Growing Greener: Putting Conservation into Local Codes*, Media, Pennsylvania: Natural Lands Trust, November 1997, pp. 92-99.

[18] Triangle School Wastewater Treatment System, <www.waterrecycling.com>, visited October 10, 2001.

Such constructed wetlands reportedly remove greater amounts of nitrogen and phosphorus from wastewater than either conventional treatment systems or septic systems. The wetlands at The Fields of St. Croix allows the treated wastewater to be absorbed into the ground, allowing replenishment of the aquifer as well. The Fields' system was one of the first of its kind approved by the Minnesota Pollution Control Authority. Another successful example is the Triangle School Wastewater Treatment and Recycling System in Chatham County, North Carolina.

(Another successful but more conventional approach that has been used in other subdivisions is community septic. In Ringfield, Pennsylvania, for example, 25 lots were clustered onto 9 acres of land, surrounded by 55 acres of permanently preserved open space. In addition to recreational space, the open spaces provided a location for several septic systems that served various clusters of home. The septic systems were operated by a homeowners association, which cleans out the solids from the tanks every few years.)

ONGOING USE AND MANAGEMENT OF OPEN SPACE

All of the 144 acres of open space at The Fields has been permanently protected through easements held by the Minnesota Land Trust. In addition to the restored prairie and pond area with walking trails, the subdivision has a sizeable neighborhood park with a mix of nature areas, a tot lot, and active recreational fields and courts. These common open space areas are owned and maintained by a Community Association. Much of the open space area is a nature preserve, planted with prairie grasses and wildflowers, and a portion is used as an organic farm. Much of it is accessible to the public via walking trails.

The agricultural areas in the subdivision are located along Route 5, a major thoroughfare, with houses set farther back from the road. As a result, the design preserves scenic views of farmland from the road, helping to maintain the agricultural character of the area. Agricultural lands are privately held and continue to be farmed, but they are protected from development through the Land Trust easements. An organization called Natural Harvest, which engages in community-supported agriculture, uses part of the agricultural land to produce organically grown vegetables. Many of the residents, other townspeople, and local restaurants pay a yearly subscriber fee in exchange for organic produce.

Several other residential communities have had success with community-supported agriculture. In the Prairie Crossing subdivision in Lake County, Illinois, 100 households pay a $400 annual subscription fee to the organic farm. In exchange, each household receives a basket of fresh produce and/or a bunch of cut flowers every week during the 20-week growing season. (The Hartford capital region has a similar example — Holcomb Farms in West Granby.[19])

[19] Holcomb Farm Community Supported Agriculture, <www.hartfordfood.org/programs/holcomb_faq.html>, visited May 2002.

SALES AND AWARDS

The market response to The Fields has been excellent. Nearly 80 percent of the home sites sold within six months of the opening of the first phase (45 homes). The lot sites varied in price from $44,500 to $150,000, with houses selling for $250,000 to $450,000.[20] The most expensive were the ones backing up against the hillside, the pond, or the restored prairie. The Fields of St. Croix's environmental conservation features has been one of its best selling points, attracting homebuyers dissatisfied with conventional, sprawling subdivisions. In April 1998, the Fields was the 1998 recipient of the Land Use and Community Development Award of the Minnesota Environmental Initiative (MEI).

4.9 MODEL ORDINANCE

Village development, as outlined in this chapter, would require amendments to the use districts in the zoning ordinance, as well as changes in the use regulations, density limitations, and open space and setback requirements. This section provides a generalized zoning approach, as well as language for a model ordinance, but each town, in considering what regulations to adopt, should craft its own regulations in accordance with its own goals and conditions.

MIXED-USE ZONING

Although any village as a whole has a mix of uses, villages are usually made up of a series of sub-districts with slightly different concentrations of uses. First, there is often one dominant commercial street (a "Main Street") or intersection (a "100 percent corner"), with shops and restaurants that rely on moderate to high pedestrian traffic. Second, there are quiet residential areas, with supporting civic and open space uses (churches, schools, parks, etc.) and home offices. Third, there is typically a transitional commercial/residential areas in between the main commercial and residential areas. This transitional zone has offices and shops that do not rely as heavily on passing pedestrians (i.e., medical offices, art galleries, etc.), as well as housing and institutions.

The preferred approach would be to separate out each of those areas into separate subdistricts that are regulated in slightly different ways. Although the area overall is intended to be mixed-use, it is important to keep some residential areas buffered from the commercial uses through the creation of subdistricts. This will help maintain residential property values and protect the overall quality of life for residents.

CLUSTER ZONING

Densities and setbacks in residential areas also need to be reconsidered in light of the possibility of clustering. In areas where housing is clustered, net densities, setbacks, lot sizes, and building dimensional requirements will have to be different from the requirements in the

[20] University of Minnesota, College of Architecture and Landscape Architecture, *Session Worksheet: Blaine Community Dialogue on the Northeast Corner,* Blaine, Minnesota, October 1999, <www.cala.umn.edu/design_center/PROJECTS/Blaine99/Sessionworksheets/Blainesession2.pdf>, visited October 11, 2001.

conventional subdivision. Towns should adopt a cluster ordinance that specifies how these aspects of the development code would change in the case of a cluster subdivision.

One of the main issues to be dealt with in the cluster ordinance is what density of development should be permitted in the clustered area or "village". Areas without sewer infrastructure will be limited in their potential density. The preferred approach is for towns to consider the character of the residential neighborhoods that surround village centers, and then to balance that vision with the realistic constraints imposed by septic disposal. With the popularity of village development in recent years, many theories have been espoused as to how dense a residential village should be. Advocates of transit-oriented development call for minimum residential densities of 8 to 12 units per acre to support bus and rail service. The proponents of neo-traditional design suggest that single-family residential lot sizes should be no larger than four to eight units per acre (5,500 to 11,000 square feet) in order to create a village ambiance. In areas relying on septic or package treatment, the densities of 8 to 12 units per acre are probably not realistic, but the ratio of four units per acre may be feasible. The range is therefore four to twelve units per acre, depending on the particulars of the site.

Commercial floor area ratios in predominantly residential areas around Main Street should be compatible in size to the residences there. Continuing with the example of 1/4-acre cluster zoning, an 11,000-square foot residential lot would have a single-family home of approximately 2,500 to 3,000 square feet, the typical size of new homes in suburban areas of Connecticut. This is roughly equal to a floor area ratio (F.A.R.) of 0.23 to 0.27. The allowable F.A.R. in along Main Street itself can be higher, because of the more concentrated nature of the commercial spine of the community. The F.A.R. should allow enough space on-site for loading, landscaping, and limited parking.[21] The upper limit of the commercial F.A.R. also partly depends upon the presence or lack of sewer.

A minimum lot size should also be established for clustered development. Many rural areas of the Hartford region have already been subdivided into relatively small lots of 10 acres or less. Cluster is not preferred for these smaller parcels, because their resulting open spaces would be relatively small and fragmented. It is preferable to target larger land holdings where it would be possible to preserve large, continuous areas of open space. The cluster ordinance also needs to establish a minimum open space requirement for the overall tract at the time of the subdivision, in order to ensure that the cluster provisions actually achieve their intended goals.

[21] Overall parking needs would be lower in a village center than in a conventional shopping center, because most patrons would be expected to arrive on foot or via transit. Also, because people can easily walk from one destination to another, shared parking is more feasible.

LANGUAGE FOR A MODEL VILLAGE DEVELOPMENT ORDINANCE

Article I: Village Development

Section 101: Purpose

Consistent with the State's zoning enabling legislation (Conn. Gen. Stat. § 8-2), the purposes of this Article are as follows:

A. To preserve farmland, open space, and natural resources and encourage clustered patterns of development.

B. To reduce auto-dependency and encourage walking and biking as alternative modes of transportation in residential neighborhoods.

C. To foster village-style development that provides a high quality of life, convenient shopping and services, and easy access to community facilities for residents.

Section 102: Intent

In order to achieve the purposes stated in § 101 above, this ordinance introduces three new zoning districts intended to foster transit-oriented development in the City/Town of _____. More specifically, the ordinance:

A. Promotes higher-density, mixed-use, pedestrian-friendly development in developing suburban and rural areas.

B. Promotes clustered development patterns, with surrounding open space and farmland.

Section 103: Definitions

Commentary: To be completed, as appropriate, in the context of the City/Town's existing zoning definitions and physical conditions.

Section 104: Establishment of Village District Zones

The location of the Village District Zones shall be as shown on the attached map. There are three subdistricts indicated on the map: Village District 1 (V-1); Village District 2 (V-2); and Village District 3 (V-3).

Section 105: General Regulations for the Transit Village Zones.

A. Village District 1 (V-1).

1. *Purpose*. The V-1 District is intended to serve as a node for neighborhood-oriented retail stores and offices, institutional and cultural uses, as well as high-density residential uses. The V-1 should serve as the neighborhood's social and cultural center and should have a strong pedestrian orientation.

2. *Permitted Uses*. Permitted uses shall be in accordance with the use schedule in § 106.

3. *Development Standards*. Permitted development shall be in accordance with the development standards schedule in § 107.

4. *Off-Street Parking and Loading*. Development shall provide off-street parking and loading in accordance with the provisions of § xxx.

   Commentary: The "§ xxx" reference is intended to refer to the existing section of the zoning code that addresses parking. Those parking provisions may need to be updated to be consistent with a compact business center environment. Provisions that should be considered include: 1) reduced parking requirements; 2) shared parking agreements; 3) incentives for underground parking; 4) improved landscaping standards for parking lots. Refer to Chapter 5 for model parking regulations for a pedestrian-oriented neighborhood shopping district. Refer also to Chapter 8 for sample shared parking provisions.

5. *Signs*. Signs are permitted in accordance with the provisions of § xxx.

   Commentary: The "§ xxx" reference is intended to refer to the existing section of the zoning code that addresses signage. Those sign regulations may need to be updated to ensure that signage is consistent with a compact, mixed-use, pedestrian-oriented environment. Refer to Chapter 7 for sample "Main Street" sign regulations from the Town of Niskayuna, NY. Refer also to Chapter 5 for model sign regulations for a pedestrian-oriented neighborhood shopping district.

6. *Design Standards*. Permitted uses shall be in accordance with the design standards schedule in § xxx.

   Commentary: Design standards should be included in the village development ordinance, in order to ensure that new development fits into the overall design vision for the village. The standards should not go so far as to proscribe a specific architectural style, but should address building size and scale, the location and orientation of entrances, façade treatments, the quality of the pedestrian environment, and parking, signage, and landscaping. Refer Chapter 6 for a discussion of neo-traditional design concepts and tools. Refer to the model ordinances in Chapters 5 and 9 for model zoning language on design standards.

C. Village District 2 (V-2).

1. *Purpose*. The V-2 District is intended to serve as a transitional area between the V-1 (commercial core) and the V-3 (residential) zones. While commercial uses are permitted, size restrictions allow for a gradual transition to the quieter residential areas of the V-3.

2. *Permitted Uses*. Permitted uses shall be in accordance with the use schedule in § 106.

3. *Development Standards*. Permitted development shall be in accordance with the development standards schedule in § xxx.

4. *Off-Street Parking and Loading*. Development shall provide off-street parking and loading in accordance with the provisions of § xxx.

   Commentary: The "§ xxx" reference is intended to refer to the existing section of the zoning code that addresses parking. Those parking provisions may need to be updated to be consistent with a compact business center environment. Provisions that should be considered include: 1) reduced parking requirements; 2) shared parking agreements; 3) incentives for underground parking; 4) improved landscaping standards for parking lots. Refer to Chapter 5 for model parking regulations for a pedestrian-oriented neighborhood shopping district. Refer also to Chapter 8 for sample shared parking provisions.

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B. Village District 3 (V-3).

1. *Purpose*. The V-3 District is intended to serve as a moderate-density residential neighborhood with supportive retail and institutional uses and abundant park space. Strong pedestrian linkages and pedestrian-friendly design should foster pedestrian activity throughout the neighborhood and between the neighborhood and adjacent V-1 and V-2 zones.

2. *Permitted Uses*. Permitted uses shall be in accordance with the use schedule in § 106.

3. *Development Standards*. Permitted development shall be in accordance with the development standards schedule in § 107.

4. *Off-Street Parking and Loading*. Development shall provide off-street parking and loading in accordance with the provisions of § xxx.

   Commentary: The "§ xxx" reference is intended to refer to the existing section of the zoning code that addresses parking. Those parking provisions may need to be updated to be consistent with a compact business center environment. Provisions that should

be considered include: 1) reduced parking requirements; 2) shared parking agreements; 3) incentives for underground parking; 4) improved landscaping standards for parking lots. Refer to Chapter 5 for model parking regulations for a pedestrian-oriented neighborhood shopping district. Refer also to Chapter 8 for sample shared parking provisions.

5. *Signs*. Signs are permitted in accordance with the provisions of § xxx.

   Commentary: The "§ xxx" reference is intended to refer to the existing section of the zoning code that addresses signage. Those sign regulations may need to be updated to ensure that signage is consistent with a compact, mixed-use, pedestrian-oriented environment. Refer to Chapter 7 for sample "Main Street" sign regulations from the Town of Niskayuna, NY. Refer also to Chapter 5 for model sign regulations for a pedestrian-oriented neighborhood shopping district.

6. *Design Standards*. Permitted uses shall be in accordance with the design standards schedule in § xxx.

   Commentary: Design standards should be included in the village development ordinance, in order to ensure that new development fits into the overall design vision. The standards should not proscribe a specific architectural style, but should address building size and scale, the location and orientation of entrances, façade treatments, the quality of the pedestrian environment, and parking, signage, and landscaping. Refer Chapter 6 for a discussion of neo-traditional design concepts and tools. Refer to the model ordinances in Chapters 5 and 9 for model language on design standards.

7. *Optional Cluster*.

   a. Residential dwelling units may be clustered as provided in § xxx of the City/Town zoning ordinance and pursuant to the State's zoning enabling legislation (Conn. Gen. Stat. § 8-2).

   b. Residential units may be clustered on any tract, provided that the parent tract is a minimum size of 20 acres.

      Commentary: In many rural areas of Connecticut, open space parcels have been subdivided into moderate-size lots of about 20 acres or less. A smaller minimum tract size may be more appropriate, if a significant number of vacant, developable parcels are less than 20 acres in size. In areas where there are larger parcels, a larger minimum could be appropriate.

   c. Pursuant to § 107, any cluster development in the V-3 zone is permitted to have an increased density up to 4.0 units per gross acre. However, the gross density of the cluster development shall *not* be *less* than 3.0 units per gross acre.

   d. *Land Area to be Preserved in the Cluster Development*.

      (1) The land area must be a minimum of 10 acres in size and not be less than 60 percent of the total land area of the tract.

      (2) The land area shall be maintained in a single continuous and contiguous land mass, to the greatest possible extent.

(3) The land area shall include sensitive environmental areas found on the tract (wetlands, floodplains, stream corridors, steep slopes, etc.), as well as areas with historic, cultural, or scenic value, to the greatest possible extent. Other unique features, such as mature woodlands and open meadows and fields, should also be included, if possible.

(4) Wherever possible, the land area shall be located next to permanently preserved open space (including farmland) or parks found on adjacent lots, unless the applicant can demonstrate that another location(s) would be preferable from the point of view of protecting natural features or resources.

e. *Land Area to be Developed in the Cluster Development*.

(1) Wherever possible and applicable, the developed area shall be located next to existing developed areas on adjacent lots or next to property lines that abut a V-1 or V-2 zone, provided that such location(s) would not disrupt or damage natural features or resources (such as wetlands, streams, groundwater quality, and so on).

(2) To the greatest possible extent, provide each residential lot with a property line that directly abuts a preserved land area.

Section 106: Schedule of Use Regulations

The schedule indicates uses that would be permitted as of right (P), permitted subject to approval of a Special Permit (SP), and prohibited (X). All uses not listed would be prohibited.

Commentary: The table on the following page shows model use regulations for the three Village Districts. The V-3 zone is primarily intended for single-family residences, but accessory apartments and two-family houses are permitted by Special Permit. In contrast, the V-1 zone allows higher-density housing only, in the form of apartment buildings and townhouses. The V-2 transition allows a mix of housing, but does not allow single-family residences, in order to preserve opportunities for higher-density housing in those locations.

Home occupations would be permitted by Special Permit in each zone. The operation of a home office has relatively little impact on its surroundings. However, home occupations can become a nuisance if non-resident employees start working on the premises, or if there are frequent deliveries or truck activity, or if there is outdoor storage, or if noise, fumes, or dangerous or disturbing emissions are released. For those reasons, towns should place strict limitations on the size and type of home occupations and should enforce those limitations through the special/conditional use permit process.

Retail and hospitality uses should be permitted almost exclusively in the V-1 zone, although bed-and-breakfast establishments can also be allowed in a limited fashion in the V-2 and V-3 zones, because they impose relatively few impacts upon their residential neighbors. Strictly prohibited uses in the V-1 zone include auto-oriented uses (like car washes, auto dealers, repair shops, and service stations), drive-through banks and restaurants, fast-food restaurants, as well as large-scale commercial establishments like shopping centers. Offices would generally be permitted in the V-1 and V-2 zones, but strictly prohibited from the V-3.

LAND USES	*V-1 (Commercial Core)*	*V-2 (Transitional Zone)*	*V-3 (Residential Neighborhood)*
RESIDENTIAL			
Accessory apartment	X	X	SP
Dwelling, One-family	X	X	P
Dwelling, Two-family	X	P	SP
Dwelling, Multi-family	P	SP	X
Home occupations	SP	SP	SP
Townhouses	P	SP	X
PUBLIC & INSTITUTIONAL			
Cemetery	X	X	P
Day Care Center	SP	SP	SP
Fraternal Organization	P	P	P
Government Offices	P	X	X
Hospital	P	X	X
Parks & Playgrounds	P	P	P
Place of Worship	P	P	P
Schools/Education Centers	P	P	P
RETAIL & HOSPITALITY			
Artisan Shop	P	SP	X
Bank/Financial Institution	P	X	X
- w/ Drive-through Window	X	X	X
Bed-and-Breakfast Inn	X	SP	SP
Business Service	P	X	X
Convenience Store	P	X	X
Farmers Market	P	X	X
Laundromat	P	X	X
Motor Vehicle Repair Shops	X	X	X
Motor Vehicle Sales	X	X	X
Motor Vehicle Service Station	X	X	X
Motor Vehicle Washing	X	X	X
Personal Service	P	SP	X
Restaurant	P	SP	X
- w/ Drive-through Window	X	X	X
- w/ Take-out Window	P	X	X
Restaurant, Fast Food	X	X	X
Retail Store	P	X	X
Shopping Center	SP	X	X
OFFICE			
Medical or Dental Clinic	P	P	X
Office	P	P	X
Veterinary Clinic	SP	SP	X

Section 107: Schedule of Development Regulations

Commentary: Cluster development is permitted only in the V-3 zone, where open space preservation would be most appropriate. Clustering in the V-1 or the V-2 would be inappropriate, as it would create a greenbelt between the commercial core of the village and the surrounding residential areas. This would defeat the intent of the village development, pattern, which is intended to create a fully mixed-use community.

	V-1 (Commercial Core)	V-2 (Transitional Zone)	V-3 (Residential Neighborhood)
Maximum Residential Density (units per gross acre)			
With sewer	12.0	8.0	4.0
Without Sewer	0.5 to 1.0[1]	0.5 to 1.0[1]	0.5 to 1.0[1]
Without Sewer, Clustered	n.a.	n.a.	4.0
Maximum Floor Area Ratio			
With sewer	0.40	0.50	0.30
Without Sewer	n.a.	n.a.	0.20
Minimum Lot Size (sq ft)			
One-family Houses, Two-family Houses, and Townhouses	3,200	4,000	5,000
All Other Uses	10,000	10,000	10,000
Minimum Lot Width (ft)	40	40	50
Maximum Number of Stories	4	3	2.5
Maximum Building Height (ft)	50	40	35
Minimum Setbacks (ft)			
Front	0	10	10
Each Side	0	0	5
Side Abutting a Street	0	10	10
Total of Both Sides	0	10	15
Rear	20	20	20

1. Net density could be higher within clustered nodes.

Section 108: Severability

If any provision of this ordinance is held invalid by a court of competent jurisdiction, the remainder of the ordinance shall not be invalidated.