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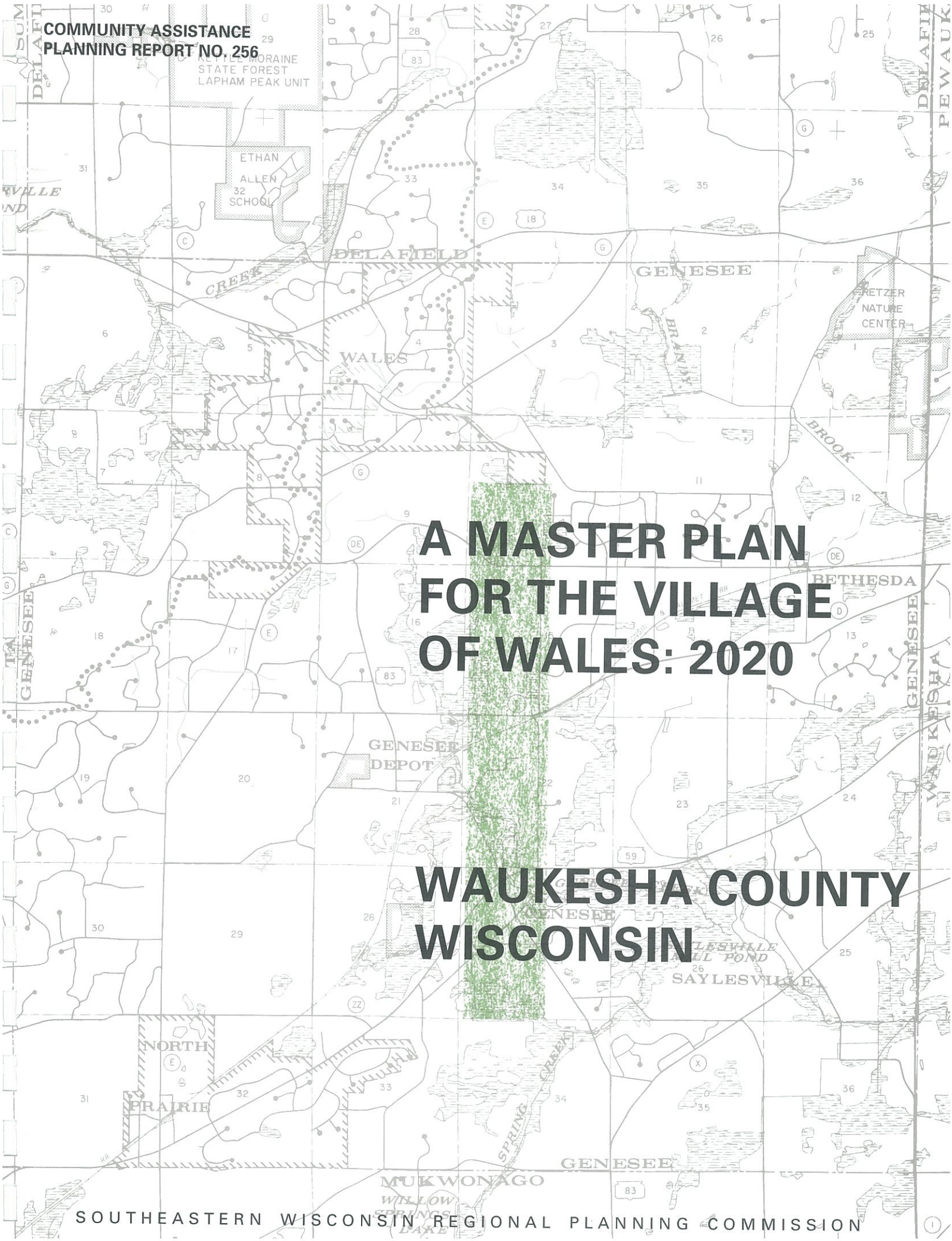

A MASTER PLAN FOR THE VILLAGE OF WALES: 2020

WAUKESHA COUNTY WISCONSIN

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

COMMUNITY ASSISTANCE PLANNING REPORT
NUMBER 256

A MASTER PLAN FOR THE VILLAGE OF WALES: 2020 WAUKESHA COUNTY, WISCONSIN

Prepared by the

Southeastern Wisconsin Regional Planning Commission
P.O. Box 1607
W239 N1812 Rockwood Drive
Waukesha, Wisconsin 53187-1607
www.sewrpc.org

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VISION STATEMENT

"In recognition of its unique history and setting, the Village of Wales seeks to retain its small village character while preserving the surrounding rural beauty of the Welsh Hills area. The Village wishes to maintain a healthy balance between human activities and the natural environment that will continue to make the community a pleasant place to live, work, and play and that will meet the future needs of the Village of Wales. The Village further intends to encourage aesthetically pleasing development that is sensitive to its distinct natural and historic features while providing opportunities for recreation. The community also desires to establish an identifiable Historic Village Center as a unique focal point for the Wales area, supported by the Glacial Drumlin Trail."

The Village of Wales requested the Southeastern Wisconsin Regional Planning Commission to assist the community in the preparation of a master plan. The plan is intended to provide local officials with a tool to help guide and shape the physical development of the Village through the year 2020. This report sets forth the findings and recommendations of the planning effort undertaken in response to the Village's request. The plan identifies the planning objectives of the Village and sets forth means for achieving those objectives over time.

The planning effort involved extensive inventories and analyses of the factors and conditions affecting land development in the Village, including existing and alternative future population, household, and employment levels; inventories of natural resources such as soils, topography, flood hazards, wetlands, woodlands, and plant and wildlife habitats; and inventories of existing land uses and local land use regulatory devices. Upon completion of the analyses, a framework for plan development was established in which past planning efforts were considered; planning objectives were identified; and probable future population, housing, and employment levels were selected. Finally, a master plan was prepared that may be expected to accommodate the needs of residents in a manner consistent with the Village's land use-related objectives. The plan also includes specific design guidelines and a set of recommended measures to help carry out the plan over time.

Throughout the planning process, public participation was encouraged. In 2000, a community survey was conducted in which residents and business operators were asked for their perception concerning desirable land uses, the value of natural resource preservation, measures to be used in shaping the Village's future, and which elements have the greatest positive and negative influence on the quality of life in the Village. Community input was also garnered through comments received at Village Plan Commission meetings in which the master plan was discussed. In addition, an informational meeting was held on September 29, 2003, and a public hearing was held

on October 29, 2003, to present a preliminary recommended plan to the public and solicit further public input. Also, the Village sent a report summary to the local governing body of adjacent communities and invited them to the aforementioned meetings.

The adopted master plan will serve as a guide to help direct and shape future land development in the Village, while promoting the protection of historic and environmentally significant resources.

THE STUDY AREA

The study area, located in the central portion of Waukesha County, includes the entire Village of Wales and the surrounding environs. The study area encompasses portions of land located in Township 6 North, Ranges 17 and 18 East, and Township 7 North, Ranges 17 and 18 East. The lands within this defined area, which includes mostly lands in the Town of Genesee with smaller areas in the Towns of Delafield, Ottawa, and Summit, encompass about 25.1 square miles. Most of the Town areas located in the study area also lie within the extraterritorial plat review jurisdiction of the Village of Wales, that is, within about one and one-half miles of the Village corporate limits. The Village of Wales occupied approximately 2.4 square miles, or 10 percent, of the study area in April 2000, and approximately 3.2 square miles, or 13 percent, in December 2000, after incorporating several areas including a 423-acre proposed golf course community called "The Legend at Brandybrook."

EXISTING CONDITIONS

Inventory is the first step in the planning process. It is important that existing conditions in the study area be thoroughly documented and analyzed before recommendations are formulated that will affect the future of that area. A summary of the demographic trends, natural resources, land uses, and land use regulations within the Village follows.

Demographic Trends

The population of the Village has steadily increased since its incorporation in 1922. The most significant growth occurred from 1970 to 1980, with the population increasing from 691 in 1970 to 1,992 in 1980, an increase of about 188 percent. The growth rate slowed from 1980 to 1990 with an increase of 479 residents to a 1990 total of 2,471, an increase of about 24 percent. Since 1990, the population grew at a slower rate than during the previous decade, with an increase of 52 residents, or 2 percent, from 1990 to 2000.

Growth in the number of occupied housing units in the Village, or households, has increased at a faster rate than the Village population in recent decades. Between 1970 and 2000, the number of households increased from 90 to 846. The number of households increased by about 106 percent during the 1960s, 207 percent during the 1970s, 27 percent during the 1980s, and 17 percent during the 1990s. The increase in the number of households has been accompanied by a decrease in the average household size, from 3.96 persons per household in 1960 to 2.98 persons per household in 2000. The decline in household size, which is a national trend, can be attributed to an increase in the number of one person households and a decrease in the number of children per family.

The number of employment opportunities, or jobs, in the Village increased from about 190 in 1970 to about 560 in 2000. Total employment in the Village increased by 105 percent during the 1970s, 26 percent during the 1980s, and 14 percent during the 1990s.

Natural Resources

The location and extent of various elements of the natural resource base, including soils and topography characteristics; water resources and associated floodplains and wetlands; woodlands; and wildlife habitat areas, were inventoried and mapped. Related elements such as scenic overlooks, park and open space sites, natural areas, critical aquatic habitats, and significant geological sites were also identified. The most significant of these features lie within areas referred to by the Regional Planning Commission as environmental corridors and isolated natural resource areas.

Primary environmental corridors include a wide variety of important natural resource and resource-related elements and are, by definition, at least 400 acres in size, two miles in length, and 200 feet in width. Most of the primary environmental corridors within the study area are associated with natural resources in the undeveloped areas of the Kettle Moraine interlobate geological area and along Wales Creek, Scuppernong Creek, Genesee Creek, and Brandy Brook. Preserving primary environmental corridors in an essentially open, natural state, will do much to maintain the overall quality of the environment and natural beauty of the Wales area. Such preservation can also help prevent the creation of environmental and developmental problems such as flood damage, poor drainage, wet basements, failing foundations of roads and buildings, and water pollution. In 2000, about 5.7 square miles, or 23 percent of the study area, were within primary environmental corridors.

Secondary environmental corridors, often remnants of primary corridors that have been partially converted to intensive urban or agricultural use, also contain a variety of resource elements. Secondary environmental corridors are at least one mile long and 100 acres in area; except where they serve to connect primary environmental corridors. Secondary environmental corridors are generally located along streams, and include wetlands associated with these streams. Maintenance of these corridors in open uses can facilitate natural surface water drainage, retain pockets of natural resource features, provide corridors for the movement of wildlife, and lend aesthetic character and natural diversity to an area. Secondary environmental corridors encompassed about 0.1 square mile, or less than 1 percent, of the study area. There are no secondary environmental corridors located within the planned urban service area.

Isolated natural resource areas represent smaller concentrations of natural resource features that have been separated from the environmental corridors. These areas sometimes serve as the only available wildlife habitat in an area, provide attractive scenic diversity to an area, and function as surface water retention areas. Such areas, which are by definition at least five acres in size, in combination encompassed about 0.9 square mile, or 4 percent, of the study area.

Existing Land Uses

In April 2000, the Southeastern Wisconsin Regional Planning Commission conducted inventories of existing land use throughout the Region, including the Village of Wales, to determine the type, amount, and spatial distribution of existing urban and rural land uses. This information was mapped and analyzed in order to help provide a basis for determining probable land use needs through the year 2020, and to assist in the design of an appropriate pattern of future land use in the Village.

About 39 percent of the study area, or 9.9 square miles, was occupied by urban land uses. The predominant urban land uses were residential uses, occupying about 28 percent of the area. Nonurban land uses occupied the remaining 61 percent of the study area, or 15.2 square miles. The predominant nonurban land use was agricultural related uses, representing about 27 percent of the study area. The second largest group of nonurban uses was natural resource areas, occupying about 24 percent of the study area, which included water, wetlands, and woodlands.

Within the Village of Wales, urban land uses occupied about 72 percent of the total incorporated area, while nonurban land uses occupied the remaining 28 percent of the Village. The predominant land use in the Village was residential uses, 52 percent, with the second largest group of uses being undeveloped open lands at about 15 percent.

Land Use Regulations

Land development can be guided and shaped in the public interest through the application of sound public land use controls. Existing land use regulations in effect in the study area were examined as they relate to the physical development of the Village of Wales and environs. The most important of the regulations considered were the zoning and land division regulations.

Zoning ordinances in effect within the study area include the Village of Wales Zoning Ordinance; zoning ordinances adopted by the Towns of Delafield and Summit; the Waukesha County Zoning Code, which regulates lands in the Towns of Genesee and Ottawa; and the Waukesha County Shoreland and Floodland Protection

Ordinance. The Village zoning ordinance contains 12 basic zoning districts, each containing specific zoning regulations, including permitted and conditional uses, maximum residential densities, minimum lot sizes, minimum yard requirements, and maximum building heights.

Land division ordinances are also in effect throughout the study area. Each Town within the study area has an adopted land division ordinance, and Waukesha County regulates land divisions within all unincorporated shoreland and floodland areas, as well as most shoreland areas annexed into incorporated communities after May 7, 1982. The Village of Wales land division ordinance applies to land in the Village and its extraterritorial plat approval jurisdiction. The Village land division ordinance contains design and performance standards and prescribes specific data to be provided for all preliminary plats, final plats, and certified survey maps.

A number of State and Federal regulatory programs govern the use of water and wetlands as well as the potential water quality impacts of development. These include Chapters NR 103, NR 110, Comm 82, and Comm 83 of the *Wisconsin Administrative Code*, and Sections 401 and 404 of the Federal Clean Water Act.

PLANNING FRAMEWORK

Other factors important to the preparation of the Village master plan include recommendations of areawide and local planning efforts; the findings of a community survey; the formulation of planning objectives and design guidelines; a planned urban service area and boundary agreements; and the selected population, housing, and employment forecasts.

Areawide and Local Plans

Sound local planning practice should give consideration to broader areawide plans. The Southeastern Wisconsin Regional Planning Commission is the official areawide planning agency for the seven-county Southeastern Wisconsin Region, which includes Waukesha County and the Village of Wales. The Commission has, since its creation in 1960, prepared advisory plans for the physical development of the Region through the systematic formulation of those elements of such plans most important to the government agencies operating within the Region. While always advisory in nature to the government agencies concerned and to private sector interests, this framework of regional plan elements is intended to serve as a basis for more detailed county and local planning, and is intended to influence both public and private sector decision-making with respect to development matters. An understanding of pertinent recommendations contained in regional, county, and local plans are, therefore, important to the proper preparation of a master plan for the Village.

The most pertinent recommendations in local, county, and regional plans as related to the Village of Wales study area pertain to land use, transportation system, bicycle-way system, water quality management, and park and opens space plans. Summaries of these plans are provided in Chapter V.

Survey, Objectives, and Design Guidelines

The preparation of the Village master plan and attendant planning objectives were guided by the Village Long-Range Planning Committee and, in part, by the results of a community survey. As a means of assessing the concerns and desires of the Village of Wales residents and business operators with respect to land use and development-related issues in the Wales area, the Village conducted a community survey in 2000. The survey results indicated that most respondents wish to retain and enhance the small-village character while preserving its precious historic and natural features. Respondents also favored an interconnecting walkway and bikeway system and establishing design standards for new intensive urban developments. The results of the community survey are documented in a report titled, *Village of Wales Community Survey Report*, December 2000.

The planning process included the formulation of a set of objectives, with supporting principles and standards, intended to express the long-term land use goals of the Village. Nine objectives were established to guide the preparation of the master plan. The objectives deal primarily with: 1) allocation of various land uses, 2) spatial distribution of various land uses, 3) maintenance of the vitality of the Historic Village Center and existing

business areas, 4) protection of the natural resource base, 5) provision of adequate recreational opportunities, 6) provision of an integrated transportation system with a high aesthetic quality, 7) provision of high-quality fire protection services, 8) provision of an adequate supply and range of housing types, and 9) preservation of historic resources.

Design guidelines were also formulated for use by local officials to evaluate and guide future development and redevelopment in the Village, including the Historic Village Center. The guidelines may be used as a basis for recommending potential solutions to design problems or to further enhance the visual quality of the Village.

Wales Planned Urban Service Area and Boundary Agreements

The master plan considered a planned sanitary sewer service area, sometimes used to define planned urban service areas, that was identified for the Wales area in a report titled, *Sanitary Sewerage System Plan for the Northwestern Waukesha County Area*, April 2000. Even though no existing public sanitary sewer service is currently available within the Village of Wales study area, an evaluation was made of alternative Dela-Hart (Delafield-Hartland Water Pollution Control Commission) sewage treatment plant options for serving the northwestern part of Waukesha County, including the Wales area. During 2001, Dela-Hart also prepared a facility plan to evaluate the current treatment needs and the best way to expand and upgrade its plant. Subsequent to the completion of the aforereferenced 2000 and 2001 plans, however, the Towns of Delafield and Genesee, which are located adjacent to the Village of Wales and within the plant's long-term service area, determined not to participate in a study that would further analyze the potential to extend public sewer service to areas in the vicinity of the Village as part of the planned Dela-Hart plant expansion. Therefore, the Village of Wales also opted not to participate at this time due to the impracticality of providing such services to only a limited service area if the two Towns do not desire such services.

The Village of Wales has entered into agreements with the Towns of Delafield and Genesee that provide a basis for establishing future municipal boundaries among the three communities and provide for cooperative planning regarding certain areas of mutual interest. The agreements are intended to provide for adequate and logical growth between the Towns and the Village so that each can properly and logically plan for the future needs of their respective community, and to avoid future potential lawsuits related to annexations. The Village of Wales and Town of Delafield agreed that the current municipal boundaries existing between the two communities, and as shown on the recommended master plan, would be fixed in perpetuity, subject only to alteration by the mutual written agreement of the two communities. The planned urban service area shown on the master plan also includes certain areas of the Town of Genesee that, under the agreement, would be immediately incorporated into the Village, and those areas that would be reserved for future expansion of the Village after the property owner(s) voluntarily request such annexation or upon development of said land.

Future Population, Housing, and Employment Levels

The population, household, and employment forecasts considered in the preparation of the Village master plan were selected based on review of historic data as well as from a range of population, household, and employment projections prepared by the Regional Planning Commission. The forecasts reflect alternative future growth scenarios for the Southeastern Wisconsin Region to the year 2020. Other local issues such as development constraints, market forces, and local desires were also taken into consideration.

Based on past and current development trends and the finite amount of developable lands in a defined planned urban service area, the future population level of the Village of Wales is envisioned to range from 3,500 to 3,700 persons by the year 2020. This level represents an increase of about 980 to 1,180 persons, or 39 to 47 percent, over the year 2000 level of about 2,520 persons. The future housing level within the Village is envisioned to range from 1,200 to 1,260 units. This level represents an increase of about 340 to 400 units, or 40 to 47 percent, over the year 2000 housing stock of about 860 units. The future number of jobs is envisioned to range from 650 to 700 jobs by 2020. This level represents an increase of about 90 to 140 jobs, or 16 to 25 percent, over the 2000 level of about 560 jobs.

THE RECOMMENDED PLAN

The recommended master plan is intended to provide planning recommendations for the Village of Wales planned urban service area and environs through the year 2020. The plan sets forth specific recommendations concerning the type, amount, and geographic location of the various land uses in the Village of Wales that will meet the needs of the resident population of the Village planned urban service area in an efficient, attractive, and economically sound manner. As conditions change from those used as the basis for preparing the plan, the plan should be revised as necessary.

Of the total 3.3-square mile planned urban service area considered in the recommended plan, about 88 percent would consist of urban uses and the remaining 12 percent would consist of nonurban uses. Several important elements of the character of the Wales planned urban service area may be noted from the master plan. First, single-family residential land uses would still constitute the largest land use in the planned urban service area, occupying about 58 percent of the planned urban service area. Recreational uses would be the next largest land use, occupying almost 13 percent of the planned urban service area. Almost half of this total is due to a proposed private golf course. Third, preserved natural areas would occupy about 12 percent of the planned urban service area, consisting of primary environmental corridors, isolated natural resource areas, and other environmentally sensitive lands. Thus, the Village of Wales will continue to reflect a community occupied predominantly by single-family residential uses supported by business services with opportunities for recreational pursuits in the Village and the surrounding environmentally significant areas.

Residential Development

Areas shown on the recommended plan for residential use would approximate 1,336 acres, or 63 percent, of the planned urban service area. Residential development is proposed to occur primarily through the creation of new residential areas located contiguous to, and extending outward from, existing residential areas. The plan identifies four categories of residential land uses consisting of single-, two-, and multi-family dwelling units and senior housing. Most new residential development would consist of single-family dwelling units with a density of no more than 1.45 dwelling units per net acre, with lot sizes typically of 30,000 square feet or larger per dwelling unit. The plan, however, recommends that open space and conservation design concepts be applied, whenever possible, where lot sizes could be reduced and clustered, while the rest of the site is retained in permanent open space. This type of development can help maintain the overall country character of the landscape, preserve significant natural features, and minimize road construction and other site improvement costs.

Commercial Development

The plan identifies commercial areas encompassing about 139 acres, or 7 percent, of the planned urban service area. Four categories of specific commercial development are shown on the plan and include general retail sales and services, offices and professional services, planned commercial centers, and, within the Historic Village Center, mixed residential-limited commercial uses. These commercial areas represent extensions of existing uses in addition to new areas recommended mostly along and at the intersection of two major arterial streets—Wales Road (STH 83) and Summit Avenue (USH 18). The businesses would serve local residents and tourists drawn to recreational opportunities in the unique southern Kettle Moraine area, which includes not only the surrounding lakes, but also the popular Glacial Drumlin Trail, Ice Age National Scenic Trail, Kettle Moraine Scenic Drive, South Kettle Moraine State Forest, and Lapham Peak State Park. The plan further recommends that the Village capitalize on the economic benefits that could be realized from the Glacial Drumlin Trail and its trailhead established within the Historic Village Center by encouraging local businesses to provide goods and services to trail users.

Industrial Development

Under the plan, the areas recommended for industrial land uses would occupy about 12 acres, or less than 1 percent, of the planned urban service area. This represents a limited increase of only two acres over the 2000 level, which is consistent with the Village's desire not to encourage significantly more industrial development, as expressed in the public opinion survey. The increase in industrial lands would take place through the expansion of existing industrial uses located southwest of the Historic Village Center.

Governmental, Institutional, Communication, and Utility Development
The recommended plan shows that governmental, institutional, communication, and utility land uses would occupy about 110 acres, or 5 percent, of the planned urban service area. These uses include the continuation of such existing uses as well as areas for new and expanded facilities. With the expansion of the Village Hall in 1996; the planned construction of a new fire station; and the planned refurbishing of the existing fire station into a public works building, existing and future government facilities should adequately serve the needs of Village residents to the plan design year 2020. In addition, the Kettle Moraine School District is in the process of renovating and expanding the Kettle Moraine High School, and studying options for addressing space constraints experienced at the kindergarten through eighth grade levels. If the District needs additional facilities, the District owns 73 acres of vacant land near the Brandybrook Community Center, which it also owns, and 22 acres of vacant land near the existing Dousman Elementary School and Kettle Moraine Middle School.

Recreational Development
Both the master plan and the adopted Comprehensive Park Plan for the Village of Wales recommend improvement and expansion of the Village park system and the potential development of a bicycle-way and recreational trail system. Public and private intensive recreational uses under the recommended plan would encompass approximately 266 acres of land, or 13 percent, of the Village 2020 planned urban service area. A significant portion of the planned increase in outdoor recreational uses is due to a new Village park named Wales Community Park and a private golf course called The Legend at Brandybrook, both currently under development. The Village park system would also include the continued use of Breconshire Park and Firemen's Memorial Park. Firemen's Memorial Park is recommended to be expanded by 35,000 square feet to improve existing recreational facilities and to accommodate an off-street parking area. Village residents would continue to use the recreational facilities located on or near the Wales Elementary School and Kettle Moraine High School sites, including the present Village-owned property located northwest of the high school athletic fields and used mostly by the Kettle Moraine School District. The Village intends to sell this nine-acre site containing soccer fields to the School District upon completion of the new community park, which should help address the District's need for additional recreational facilities.

The master plan recommends a system of trail facilities that would be a part of a larger system that should be developed as the community grows. This interlinked network of bikeways and recreation trails would provide the residents of the Wales area opportunities for a longer and wider array of trail-oriented recreational pursuits, such as hiking and biking, as well as safe and convenient access to major activity centers. Ultimately, it is envisioned that these trail facilities, which include the existing Glacial Drumlin Trail, will connect to other surrounding key recreation attractions in the unique glacial area such as the Ice Age National Scenic Trail, Lapham Peak State Park, Scuppernong Creek Parkway, South Kettle Moraine State Forest, Nagawaukee County Park, the Lake Country Recreation Trail, and the Retzer Nature Center.

Environmentally Significant Lands
The master plan recommends that new urban development be properly related to natural resources in order to maintain the environmental quality and natural beauty of the Village for the residents of the area. Under the plan, primary environmental corridors would occupy about 141 acres, or 7 percent, of the planned urban service area. Isolated natural resource areas would occupy about 57 acres, or 3 percent, of the planned urban service area, consisting mostly of tracts of wetlands and woodlands. The plan also recommends the preservation of several other areas that contain important natural resource values even though these areas do not qualify as part of an environmental corridor or isolated natural resource area. These areas would occupy about 63 acres, or 3 percent, of the planned urban service area, of which 95 percent would be located within a planned golf course community.

The plan recommends that these environmentally significant areas be preserved, to the maximum extent practicable, in essentially natural, open uses. The plan, however, recognizes that certain transportation and utility facilities may be necessary within these areas, and that limited outdoor recreational facilities and certain institutional uses may be accommodated in such areas without jeopardizing their overall integrity. In some cases, very low-density residential development at a density of no more than one dwelling unit per five acres, compatible with the preservation of the corridors, may also be permitted to occupy corridor lands. Clustered

residential development should be encouraged over conventional land subdivision in environmentally significant areas to minimize disturbance to natural resources.

Arterial Street and Highway System

The arterial street and highway network required to serve the existing and probable future traffic demands in the Wales area to 2020 is reflected in the regional transportation system plan and the Waukesha County development plan. The master plan recognizes and supports the arterial highway system recommendations of the regional transportation system plan as it relates to the Wales area in order to safely and efficiently move traffic within and through the Wales area. Recommended arterial street improvements include the resurfacing or reconstruction of County Trunk Highways D, E, and DE to provide essentially the same capacity that currently exists; and the widening of USH 18 east of STH 83 to accommodate four lanes and the widening of STH 83 north of CTH DE to accommodate four lanes to provide additional capacity. The Village, however, wishes to reserve judgment on the additional improvements recommended under the "buildout" conditions of the Waukesha County development plan which would serve the probable future traffic demands in the Wales area beyond 2020. The additional improvements would include widening USH 18 west of STH 83 to accommodate four lanes and widening STH 83 north of USH 18 to accommodate six lanes and south of CTH DE to accommodate four lanes. The Village wishes to analyze the results of future traffic studies and the outcome of public meetings related to these improvements, including the current improvement study being conducted by the Wisconsin Department of Transportation (WisDOT) for STH 83 from STH 16 in the Village of Hartland to CTH NN in the Village of Mukwonago. The Village has already expressed transportation and design-related comments to WisDOT for their consideration in this traffic planning process. The Village requested that WisDOT study the potential realignment of CTH G at its intersection with STH 83 in order to increase or eliminate the jog (off-set intersection) and, thereby, improve traffic safety, especially if STH 83 is planned to be widened to four lanes.

Design Recommendations

Design recommendations are included as an element of the master plan to help the Village continue its efforts to maintain and improve its unique visual character and the vitality of its Historic Village Center. Specific recommendations include improving the streetscape facade in the Wales Historic Village Center by planting attractive street trees, constructing articulated crosswalks, and installing decorative streetlights with colorful banners; identifying and preserving significant historic resources in the Center and the rest of the community; reducing or eliminating the negative visual clutter of overhead utility lines and supporting structures; encouraging landscaping to be provided by private-property owners, including building foundation landscaping, interior parking lot landscaping, parking lot screening, buffer and perimeter strip landscaping, and sign landscaping; providing architectural review guidelines to ensure architectural compatibility of buildings and other structures; ensuring the proper maintenance of landscaping, buildings, and other structures; and improving vehicular, bicycle, and pedestrian circulation. The heavy traffic volumes along two arterial highways that serve as the main "gateways" funneling traffic into the Village, Wales Road (STH 83) and Summit Avenue (USH 18), provides an opportunity for the Village to present a positive image to users of these facilities, by providing street trees, colorful street and wayfinding signs, well-defined crosswalks with decorative pavements, and attractive street and traffic lights. The good appearance and proper design of sites within the Village will enhance the community as a place to live, work, and play and may help to stabilize and even increase property values to the advantage of both the community and the individual property owners.

PLAN IMPLEMENTATION

Successful implementation of the master plan will require faithful, long-term dedication to its underlying objectives. Thus, the adoption of the plan is only the beginning of a series of actions necessary to achieve the plan objectives.

After holding a public informational meeting and hearing on the recommended master plan, an important step in plan implementation is the formal adoption of the plan by the Village Plan Commission and the Village Board. The recommended master plan was adopted by the Village Plan Commission on October 29, 2003, and subsequently adopted by the Village Board on November 3, 2003. Upon such adoptions, the plan becomes the

official guide to be used by local public officials in making development decisions concerning development and redevelopment of the Village and environs.

Other important recommended plan implementation measures include: a comprehensive revision of the Village zoning ordinance and zoning district map, including the potential addition of R-4 Multi-Family Residential, I-1 Institutional, C-2 Upland Conservancy, and PUDO Planned Unit Development Overlay Districts; establishing additional design-related requirements; updating the Village land division ordinance; and the use of open space or conservation design concepts. The adopted plan should serve as a basis for the review of all rezoning requests as well as preliminary subdivision plats and certified survey maps. Only those proposed rezonings or land divisions which are consistent with the objectives of the plan should be approved. The Village indicated that it intends to conduct a comprehensive amendment of its land division and zoning ordinances and zoning district map after adoption of the master plan. At a minimum, Village officials should consider the recommended changes discussed in this report.

Within the framework of the master plan, a comprehensive pedestrian, bicycle, and recreation trail facility system plan and more detailed revitalization and historic preservation plans should be prepared for the Village and its Historic Village Center. Historic preservation planning should continue to take place, beginning with the Village conducting a historical survey in conformance with accepted National standards, with professional assistance, to definitively identify the Village historic resources, plan for the preservation of those resources, and prevent future disrepair or demolition.

Those elements of the plan requiring public expenditures for implementation could be integrated into the Village capital improvements program. The plan also recommends continued intergovernmental cooperation between the Village and adjacent communities. The plan should be periodically reevaluated in light of new information and changing public attitudes and opinions so that it continues to properly reflect current conditions and local planning objectives.

CONCLUSION

The main purpose of the Village master plan is to provide information and recommendations that public officials can use in making consistent decisions about future growth and development in the Village and environs. The plan also provides developers and other private interests a clearer indication of Village planning objectives, enabling them to take those objectives into account when preparing development and redevelopment proposals. Only those proposals that are consistent with the objectives of the plan should be approved.

The master plan, together with supporting implementation techniques, provides an important means for promoting the orderly development and redevelopment of the Village in the public interest. To the extent that the plan is implemented over time, a safer, more healthful and attractive environment will be created within the Village.

Chapter I

INTRODUCTION

The State municipal planning enabling act, set forth in Section 62.23 of the *Wisconsin Statutes*, provides for the creation of municipal plan commissions and charges those commissions with the responsibility of creating and adopting a "master" plan for the physical development of the municipality, including any areas outside of its boundaries, which may affect development of the municipality. The scope and content of the master plan, as set forth in the Statutes, may be very broad, extending to all aspects of the physical development of a community. The Statutes indicate that the plan shall be prepared for the general purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of the municipality which will, in accordance with existing and future needs, best promote the public health, safety, morals, order, prosperity, and general welfare, as well as fostering efficiency and economy in the process of development.

In April 1998, the Village of Wales requested the Southeastern Wisconsin Regional Planning Commission to assist the Village in the preparation of a master plan for the design year 2020. The planning effort was initiated in early 2000, with the Regional Planning Commission staff working closely with the Village staff and officials as well as the general public. The plan, when adopted by the Village Plan Commission and the Village Board, is intended to serve as a guide to Village officials in making development decisions within the Village of Wales and environs. This report sets forth the desired master plan.

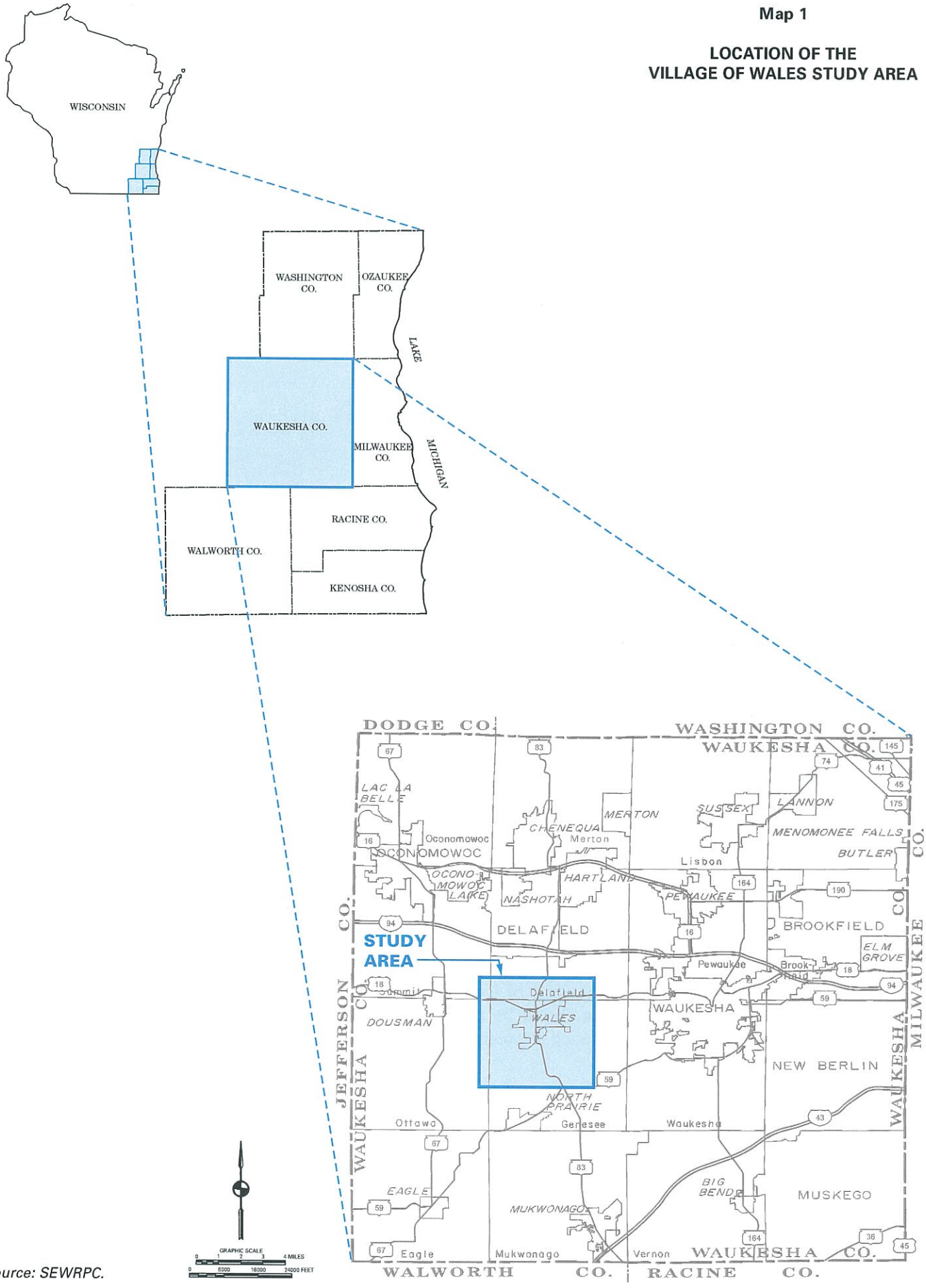
The Wisconsin Legislature in 1999 adopted the so-called "Smart Growth" legislation, which requires any action of a local government that affects land use, such as enforcement of zoning or subdivision ordinances, to be consistent with the community's Comprehensive Plan beginning on January 1, 2010. A new definition of comprehensive plan, consisting of nine elements, was adopted as Section 66.1001 of the *Wisconsin Statutes*. The legislation does not, however, affect the ability of local governments to prepare and adopt master plans under Section 62.23 of the Statutes. This plan should be re-evaluated prior to 2010 to determine what changes or adjustments, if any, may be necessary to bring this plan into compliance with "Smart Growth" requirements.

THE STUDY AREA

The Village of Wales study area is located in the central portion of Waukesha County, as shown on Map 1, and consists of the entire Village of Wales, plus surrounding areas. The study area encompasses approximately 25.1 square miles which contains all of Sections 31 through 34 and the west half of Section 35 in U.S. Public Land Survey Township (T) 7 North (N), Range (R) 18 East (E); all of Section 3 through 10 and 15 through 22 and the west halves of Sections 2, 11, 14, and 23 in T6N, R18E; the east halves of Sections 1, 12, 13, and 24 in T6N, R17E.; and the east half of Section 36 in T7N, R17E. Of this total study area, the Village of Wales—based on

Map 1

LOCATION OF THE VILLAGE OF WALES STUDY AREA



Source: SEWRPC.

April 2000 corporate limits—encompassed about 2.4 square miles, or about 10 percent. The remaining approximately 22.7 square miles, or about 90 percent of the study area, consisted mostly of lands in the Town of Genesee with smaller areas consisting of lands in the Towns of Delafield, Ottawa, and Summit. Most of the Town areas located in the study area also lie within the extraterritorial zoning and plat review jurisdiction of the Village of Wales, that is, within about one and one-half miles of the Village corporate limits.

COMMUNITY HISTORY [1]

The Wales area was inhabited by Native American Indian tribes, mostly the Potawatomi tribe, before European immigrants settled in the area. Oak openings with prairie grasses occupied the hills surrounding marsh areas along the meandering Brandy Brook, Scuppernong Creek, and Genesee Creek. Shortly after the completion of the U.S. Public Land Survey of the area in 1836, Wales was first settled in 1840 by farmer John Hughes, a Welshman from Cardiganshire, Wales of Great Britain. He was followed by other farmers seeking a common goal shared by many of the newly-arriving German, Norwegian, and Irish immigrants moving into Wisconsin in the early 1840s to plant Wisconsin's most famous cash crop, wheat. This cash crop was supplemented by butter and poultry sales until the depleted soils forced the Welsh and other farmers to turn to alternative endeavors, especially dairy farming. In fact, Waukesha County was in 1943 heralded as "Cow Country USA," with about 45,200 cows milked in the County, compared to about 6,800 in 1996. Over time, other Welsh eventually settled the Kettle Moraine area, where the terrain reminded them of the rolling hills in their native country.

Among Mr. Hughes new neighbors was Richard "King" Jones, also from Cardiganshire, who was one of the most influential Welshman that established the groundwork under which the settlement quickly expanded, while retaining its distinct cultural identity. Mr. Jones willingly provided his farm as a reception center filled with kinship and religious inspiration and supplied the necessary financial and emotional support to newly arriving Welsh immigrants, which encouraged other immigrants to join their fellow countrymen in this area between 1842 and 1847. The Welsh language and religion of the area, which survived the migratory journey, outweighed the rough terrain of the Kettle Moraine's lesser quality farmland, which still provided a few acres of cropland capable of generating healthy yields of grain.

At one time, 10 Welsh chapels dotted the "Welsh Hills," serving a colony estimated at about 1,000 Welsh immigrants by 1873. One of the hills was referred to as Government Hill and is the highest peak in Waukesha County at 1,233 feet in elevation. In 1916, the Waukesha County Historical Society named the hill Lapham Peak in memory of Increase A. Lapham, founder of the U.S. Weather Bureau. This peak is presently located northwest of the Village of Wales and is part of Lapham Peak State Park, a unit of the Kettle Moraine State Forest.

In the summer of 1880, the Chicago & North Western Railway began purchasing land in the Wales area to construct a rail line that would provide both freight and passenger services from Milwaukee to Madison. The land surrounding a completed railroad depot, in what is now the Village of Wales, was platted for lots, as illustrated in Map 2, to be sold to newcomers. A post office, general store, feed mill, lumber yard, blacksmith shop, bank, shoemaker shop, and other various stores and service businesses as well as homes were constructed on these lots. This ethnic enclave, referred to as the "Capital of the Welsh Hills," eventually incorporated as the Village of Wales in 1922 with Mr. E. G. Thomas as its first president. By 1923, the Village grew to a population of about 100 people. With the development of the railroad and the concentration of various businesses surrounding the depot, Wales functioned as a trade center supporting farmers in the immediate area, often referred to as the Welsh Hills of Waukesha County. As the Village continued to grow over time, more schools, churches, stores, and hotels soon followed in the Wales area. The role of Wales as an agricultural community and a retail trade center, supporting the Village and surrounding Welsh area, continued through the Second World War.

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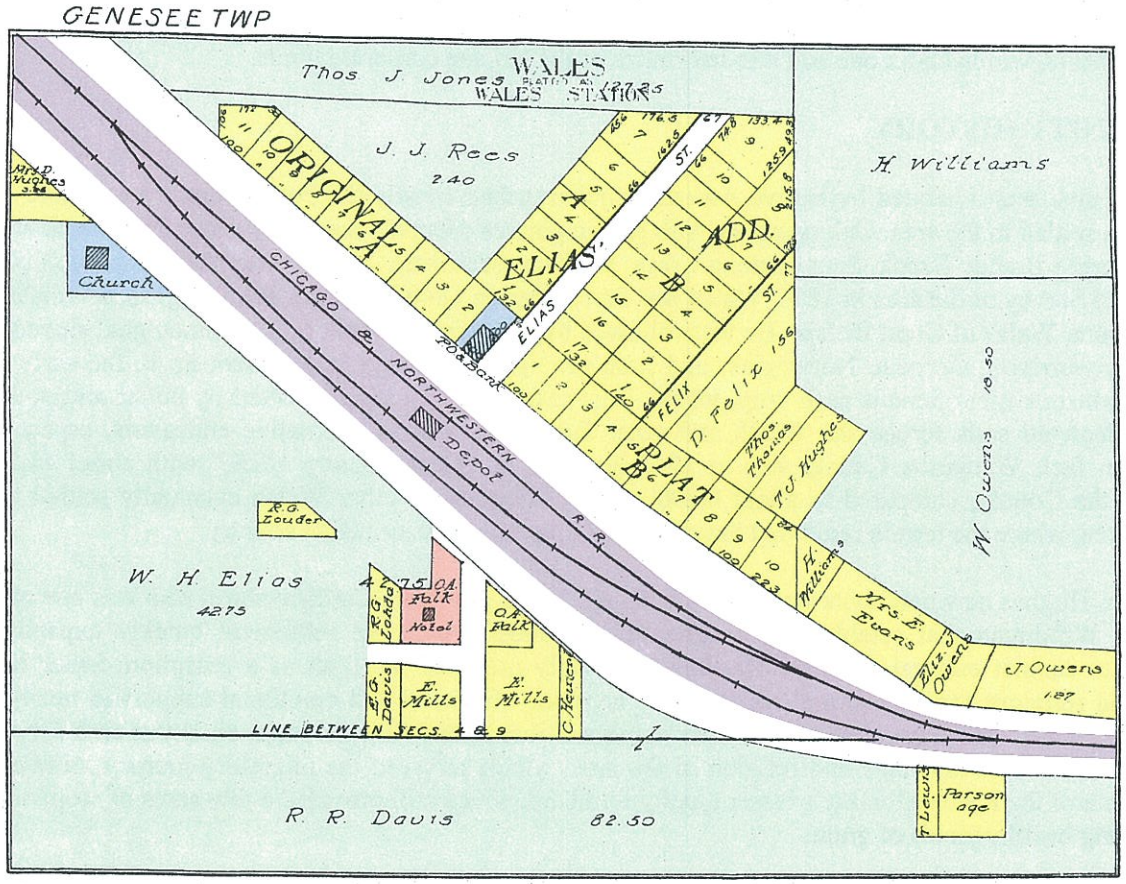
[1] *Historic information was obtained primarily from reports by Patrick Byrne and Theodore Mesmer,* The Welsh Hills of Waukesha County: A Photographic Study of Stewardship, *Celtic Ink, Wales, Wisconsin, 1997; and the Village of Wales, Wisconsin, Centennial Committee,* Wales Centennial, 1881-1982, *Wales, Wisconsin, 1982.*

Map 2

HISTORIC PLAT OF THE VILLAGE OF WALES: 1914



Source: Village of Wales and SEWRPC.

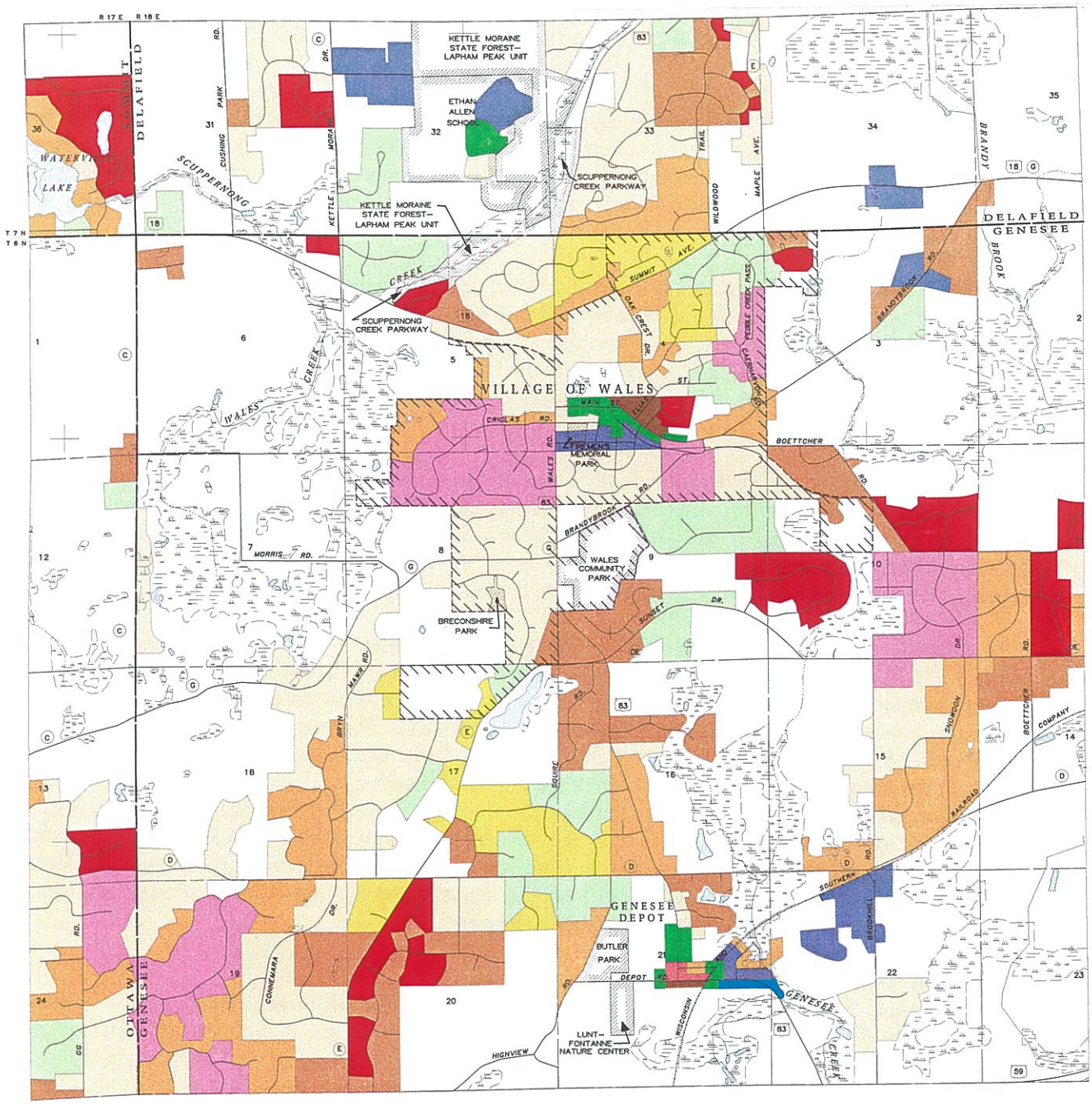
Eventually developers began offering farmers good prices for their land in order to build residential subdivisions. This trend toward suburbanization was influenced by people working in the metropolitan Waukesha-Milwaukee area who wished to live in the "country." Soon Wales established itself as a haven for metropolitan commuters. Today, the residents of the Village of Wales are served by a variety of commercial activities supported by various public services including such facilities as a Village Hall, a fire station, parks, and schools. Map 3 shows the progression of historical urban development in the study area, including the Village of Wales, from 1850 to 2000.

Today, the community proudly recognizes its Welsh heritage and continues to keep it alive by annually celebrating St. David Day (a patron saint of Wales, Great Britain) in March, which is also celebrated by other Welsh throughout the world. The Village even gave its streets Welsh names and included on these signs an icon of a red dragon, [2] which represents "purity" and lends "impetus", and is the official symbol of the Village. The dragon is also one of the national symbols of Wales in Great Britain, as seen on Welsh flags.

[2] *The story behind the red dragon, illustrated as part of Map 2, commemorates a legend that in a vision Merlin the magician saw a white dragon, the Saxons, destroy a red dragon, Cymru—the Welsh word for Wales, which rose again, symbolizing the failure of the Saxons to conquer Wales. Others say the Welsh dragon is directly descended from the Roman's griffin, which looks similar to the red dragon but with the head, foreparts, and wings like those of an eagle and a body, hind legs, and tail like those of a lion.*

Map 3

HISTORICAL URBAN GROWTH IN THE VILLAGE OF WALES STUDY AREA: 1880-2000



Source: SEWRPC.

THE PLANNING PROCESS

The master plan presented in this report was developed through a planning process consisting of the following steps: 1) inventory, 2) analysis and forecast, 3) formulation of objectives, 4) plan design, 5) plan evaluation, and 6) plan refinement and adoption. Plan implementation, although a step beyond the foregoing planning process, was considered throughout the process so that realization of the plan could be fostered.

Inventory

Reliable planning data are essential for the formulation of workable master plans. Consequently, an inventory of existing conditions is the first step in the planning process. It includes collecting existing information and gathering new information by direct measurements. Most of the necessary inventory data are available in the Southeastern Wisconsin Regional Planning Commission files. Data that are not available in these files were collected from other sources.

Where possible, inventories requiring graphic presentation were compiled using a geographic information system. Converting graphic data inventories to a computer-compatible format increased the options available in the presentation of material and in later steps of the planning process. Inventory data were grouped into four categories: 1) population, housing, and employment characteristics, 2) existing natural resource features, 3) existing land uses and public facilities, and 4) existing land use regulations.

Analyses and Forecasts

Analyses and forecasts are necessary to provide estimates of future needs for resources, land, and supporting public facilities such as roads, sanitary sewer service, and schools. Analyses of the inventoried data provide an understanding of existing conditions as well as the factors which influence changes in those conditions. Particularly important in this step is determining the amount of land that will be needed to accommodate various land uses based on future population and economic activity levels.

Formulation of Objectives, Principles, Standards, and Design Guidelines

An objective is a goal toward which the attainment of a plan is directed. The objectives serve as a guide to the preparation of alternative plans and provided an important basis for the evaluation of these alternatives and the selection of a recommended plan from among the alternatives considered. The community plan should be clearly related to the defined objectives through a set of principles, standards, and design guidelines. Objectives may change as new information is developed, as objectives are fulfilled through plan implementation, or as objectives fail to be implemented due to changing public attitudes and values. Because objectives are essentially reflections of the values held by residents of a study area, the formulation of objectives should involve the active participation of Village officials and citizens. To this end, the results of a community survey and the Village Long-Range Planning Committee, which includes both key elected and appointed local officials and citizen members, provided guidance throughout the entire planning process.

Plan Design and Evaluation

Plan design and evaluation is the heart of the planning process. The results of the three previous steps—inventory, analyses and forecasts, and formulation of objectives—help shape the plan design. In this step, a plan is designed, or alternative plans are designed, to address the needs of the community. The plan or plan alternatives should be evaluated on the ability to meet the agreed upon objectives. This evaluation is important since it provides the opportunity to determine if the plan ultimately to be recommended is realistic, sound, and workable. If alternative plans have been designed, this step permits the study of each and the selection of the best.

Plan Refinement and Adoption

The last step in the planning process involves the presentation of the plan in a public forum, the refinement of the plan as necessary, given the public input received, and the adoption of the plan by the Village Plan Commission. Adoption of the plan by the Village Board is also recommended to demonstrate acceptance and support by the governing body. Upon adoption of the plan, it becomes a guide to local planning decision making.

Plan Implementation

Implementation of the adopted plan requires the use of several planning tools of a legal nature. A Village zoning ordinance and accompanying zoning district map should be used to legally assure that private development and redevelopment will occur in conformance with the adopted plan. Zoning regulations should govern not only the types of land uses permitted in various parts of the community, but the height and arrangement of buildings on the land, the intensity of the use of land, and the supporting facilities needed to carry out the intent of the master plan. Land division regulations in the form of a Village land division ordinance should be applied to assure that any proposed land subdivision plats and certified survey maps conform to the adopted plan with respect to the type, location, and extent of the proposed land uses to be accommodated.

Implementation of the plan should also be furthered by the formulation of public policies that promote and ensure plan implementation. A capital improvements program is one particularly effective expression of such policies relating to the physical development and redevelopment of the community.

Plan Reevaluation

The preparation of a Village master plan does not signal an end to the planning process. Indeed, if the Village plan is to remain viable, it must be periodically reviewed and reevaluated to make sure that it will meet the continually changing needs of the Village. Periodic review of the plan will serve to remind the Village Plan Commission and Board members of the objectives identified in the plan preparation process, introduce plan concepts to new Village officials, and may even prompt work on plan amendments required as a result of changing public policy related to future land uses in the Village. In addition, the plan should be reevaluated prior to 2010 and revised, if necessary, to comply with the Comprehensive Planning requirements adopted by the State in 1999.

REPORT FORMAT

This document consists of the report summary and eight chapters. Following this introductory chapter, Chapters II through V present inventory data and historic trend data essential to the planning effort. Separate chapters are devoted to the description and analysis of the demographic trends and projections, the natural resource base, the existing land uses and public facilities, existing areawide plans, and existing land use regulations. Chapter VI presents the key findings of a community survey and provides a set of objectives, principles, standards, and design guidelines pertaining to land development. Chapter VII presents a recommended master plan for the Village of Wales planned urban service area. Chapter VIII describes the actions which should be taken by the Village to facilitate implementation of the recommended plan, including potential revisions to local zoning and land division ordinances.

Chapter II

POPULATION, HOUSING, AND EMPLOYMENT TRENDS AND PROJECTIONS

Information on the size, characteristics, and distribution of the resident population, household, and employment in the Village, and on anticipated changes in these factors over time, is essential to the preparation of a sound master plan. Some of the land use requirements that a plan seeks to meet are directly related to the existing and probable future population, household, and employment levels of the area.

In a municipality, such as the Village of Wales, that is set in a dynamic region, the preparation of population, household, and employment forecasts is a difficult task, subject to periodic revision as new information becomes available. The forecasts eventually selected as a basis for the Village plan were derived from regional and county projections reflecting alternative future growth scenarios for the Southeastern Wisconsin Region developed by the Regional Planning Commission and used by the Commission in its regional and local planning efforts.

Three alternative future scenarios were prepared for the Region as a basis for the regional population, household, and employment projections: a low-growth scenario, an intermediate-growth scenario, and a high-growth scenario. Under each scenario, land use development patterns were developed which were believed to represent conditions that could occur in the Southeastern Wisconsin Region, including the Village of Wales, over approximately the next 20 years. An additional variable, referred to as centralized and decentralized population distributions, which deals with the degree of concentration or "centrality" of development as measured by the relative nearness of new urban land uses to the major population centers in the Region, was added to the analysis of each scenario. In reviewing these alternative projections, two of the alternative scenarios for growth and development, an intermediate-growth future scenario with a centralized development pattern and a high-growth future scenario with a decentralized development pattern, were selected as a basis for preparing the future population, household, and employment levels for the Village. It is believed that they represent a realistic range of levels for the Village through the year 2020.[1]

Historical population, household, and employment census data for the Village of Wales are based on the corporate boundaries of the Village. However, future population, household, and employment scenarios for the Village of Wales assume that the corporate boundaries of the Village will be larger in the plan design year 2020 than they are at present. Areas may be incorporated into the Village in order to provide urban services to developing areas

[1] *For a detailed description of the methodology used to develop these projections, see SEWRPC Technical Report No. 11, Third Edition,* The Population of Southeastern Wisconsin, *October 1995; and Technical Report No. 10, Third Edition,* The Economy of Southeastern Wisconsin, *October 1995.*

and thereby accommodate urban growth in a concentrated area. For this reason, the future scenarios are based on an urban service area that includes the area within the corporate limits of the Village as well as such additional contiguous lands needed to accommodate anticipated new urban development.

The base year for the projections presented in this chapter is 1990; however, 2000 Census data is provided for comparison and information purposes. While the projections represent reasonable estimates of future conditions, they are provided as a starting point for the identification of the parameters which will ultimately determine the design of the plan. Chapter VII presents the forecasts of population, households, and employment selected by the Village to guide the design of the Village plan. Such forecasts take into account changes which have occurred within the Village between 1990 and 2000.

POPULATION

Population Trends and Projections

Historical and future populations for the Region, Waukesha County, and the Village of Wales are set forth in Table 1 and Figure 1. As shown, all three geographic areas have experienced relatively significant and steady population growth during the period 1930 to 2000. The Village experienced a steady growth rate from 1930 to 1950. Thereafter, the community experienced a rapid growth rate from 1950 to 1980 and a steady increase from 1980 to 2000. The 2000 population is more than a ten-fold increase over the Village population in 1950.

As shown in Table 1 and graphically illustrated in Figure 1, it is envisioned that this increase would continue in the Village urban service area as indicated in the range of future population levels considered under the alternative future growth scenarios. The intermediate-growth centralized scenario envisions that the population would increase to about 3,310 by the year 2020, an increase of about 787 residents, or about 31 percent, over the 2000 level of 2,523 in the Village urban service area. In contrast, under the high-growth decentralized scenario, the population of the Village urban service area is envisioned to increase to about 5,150, an increase of approximately 2,629 residents, or about 104 percent, during the same time period.

Age Distribution

The age distribution of the population has important implications for planning and the formation of public policies in the areas of education, recreation, health, housing, and transportation. The age composition of the Region, County, and Village are set forth by age group in Table 2. In general, as the resident population of the Region and County increased during the last two decades, the number of adults increased significantly, while the number of children increased steadily. In contrast, the overall number of children decreased in the Village of Wales over the last two decades while the number of adults increased.

Between 1980 and 2000, the number of children under the age of five increased about 3 percent in the Region and about 15 percent in the County, and decreased about 38 percent in the Village of Wales. While the number of school-age children, ages five through 17, between 1980 and 2000 increased about 1 percent in the Region and 2 percent in the County, the Village experienced a higher percentage increase of about 6 percent. Under the high-growth scenario for Waukesha County, the school-age population may be expected to increase over the planning period, which may result in a need for additional educational and ancillary recreation facilities for the Wales area. Under the intermediate-growth scenario for the County, the number of school-age children is not expected to increase substantially.

Table 2 shows the number of working-age adults, ages 18 through 64, between 1980 and 2000, increased about 11 percent in the Region and about 31 percent in the County, while the Village experienced a higher increase of about 48 percent. This increase in the labor/work force may be expected to continue during the planning period. The number of persons aged 65 and older increased significantly in all three geographic areas between 1980 and 2000, with an increase of about 23 percent in the Region, about 108 percent in the County, and about 94 percent in the Village. The increase in the size of the elderly population, which may be expected to continue throughout the planning period, is expected to increase the demand for specialized housing units, transportation, and health care services for the elderly.

Table 1

HISTORICAL AND PROJECTED POPULATIONS IN THE REGION, WAUKESHA COUNTY, AND THE VILLAGE OF WALES: 1900-2020

Year	Region			Waukesha County			Village of Wales		
		Change from Previous Period			Change from Previous Period			Change from Previous Period	
	Population	Number	Percent	Population	Number	Percent	Population	Number	Percent
1900	501,808	115,034	29.7	35,229	1,959	5.9	--	--	--
1910	631,161	129,353	25.8	37,100	1,871	5.3	--	--	--
1920	783,681	152,520	24.2	42,612	5,512	14.9	--	--	--
1930	1,006,118	222,437	28.4	52,358	9,746	22.9	132[a]	--	--
1940	1,067,699	61,581	6.1	62,744	10,386	19.8	170	38	28.9
1950	1,240,618	172,919	16.2	85,901	23,157	36.9	237	67	39.4
1960	1,573,614	332,996	26.8	158,249	72,348	84.2	356	119	50.2
1970	1,756,083	182,469	11.6	231,365	73,116	46.2	691	335	94.1
1980	1,764,796	8,713	0.5	280,203	48,838	21.1	1,992	1,301	188.3
1990	1,810,364	45,568	2.6	304,715	24,512	8.7	2,471	479	24.0
2000	1,932,908	122,544	6.8	360,767	56,052	18.4	2,523	52	2.1
2020 Projections									
Intermediate-Growth Centralized	2,077,900	144,992	7.5	387,500	26,733	7.4	3,310[b]	787	31.2
High-Growth Decentralized	2,367,000	434,092	22.5	532,800	172,033	47.7	5,150[b]	2,627	104.1

[a] *The Village of Wales was incorporated in 1922.*

[b] *Projections for the Village of Wales urban service area.*

Source: U.S. Bureau of the Census and SEWRPC.

Educational Attainment

The level of educational attainment is one indicator of earning potential, which, in turn, influences such important choices as location, type, and size of housing. Table 3 compares the educational attainment of Village residents with those of Waukesha County and the Region. In 2000, about 95 percent of the residents 25 years of age and older in the Village of Wales, or 1,470 persons, had a high-school or higher level of education. This is higher than the educational attainment of the population of both the County and Region, where 92 and 84 percent of the respective populations have attained this level of education. This table also indicates that about 49 percent of the population in the Village had earned either an associate, bachelor's, or graduate degree, compared to about 42 percent in the County and 32 percent in the Region.

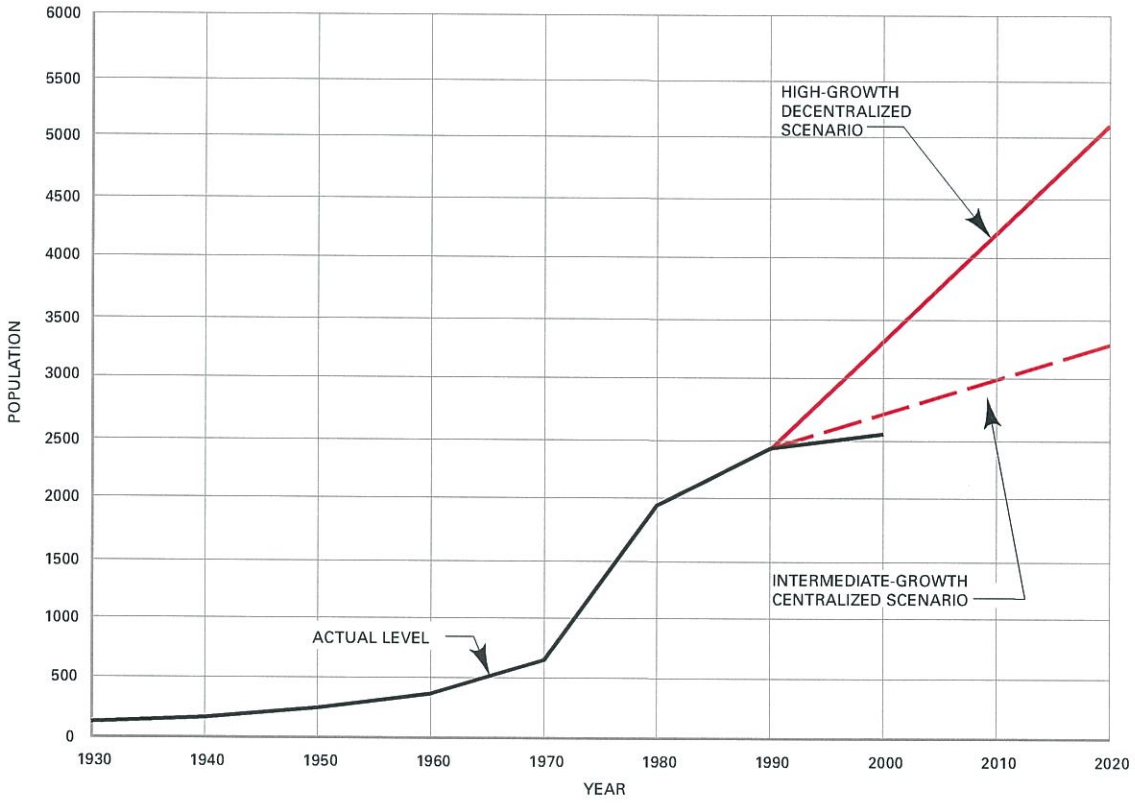
Household and Family Income[2]

The 1999 annual income levels in the Region, County, and Village are set forth in Table 4. For comparison purposes, both the average and median incomes are presented. The median income level is found by listing, in a sequential order, the annual income of every household or family and selecting the value in the middle of the list. This middle value is generally used in summarizing income data because the average value can be inordinately affected by a relatively small number of households or families at the extreme high or low end of the income range. A comparison of income levels among the three geographic areas indicates that the 1999 annual average and median incomes for both households and families in the Village were higher than those for both the County and Region.

[2] *Households include persons who live alone; unrelated persons who live together, such as college roommates; and families. Persons not living in households are classified as living in group quarters, such as hospitals for the chronically ill, homes for the aged, correctional institutions, and college dormitories. Families are essentially related persons who live together.*

Figure 1

HISTORICAL AND PROJECTED POPULATIONS FOR THE VILLAGE OF WALES: 1930-2020



NOTE: PROJECTIONS ARE FOR THE VILLAGE OF WALES URBAN SERVICE AREA.

Source: U.S. Bureau of the Census and SEWRPC.

HOUSING

Household Trends and Projections

Historical and future household levels for the Region, Waukesha County, and the Village of Wales are set forth in Table 5. As indicated in Table 5, there was an increase in the number of occupied housing units in all three geographic areas between 1960 and 2000, with significantly high increases for both Waukesha County and the Village of Wales. This table also demonstrates that the rate of increase in the number of occupied housing units exceeded the rate of population change in each of these three areas. With the number of households increasing at a faster rate than the population, household size throughout the Region has steadily decreased.

The trend towards an increase in the number of households, occupied housing units, for the Village may be expected to continue under both the intermediate-growth centralized scenario and the high-growth decentralized scenario. As indicated in Table 5, by the year 2020 household levels in the Village urban service area are envisioned to range from approximately 1,070 units under the intermediate-growth scenario to approximately 1,600 units under the high-growth scenario for an increase of about 27 and 89 percent, respectively, over the 2000 level of 846 units.

Table 2

AGE COMPOSITION OF THE POPULATION IN THE REGION, WAUKESHA COUNTY, AND THE VILLAGE OF WALES: 1980-2000

Region								
Age Group	1980[a]		1990		2000		1980-2000 Change	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 5	128,086	7.2	138,444	7.7	132,390	6.9	4,305	3.4
5 through 17	375,653	21.3	338,629	18.7	377,706	19.5	2,053	0.5
18 through 64	1,065,887	60.4	1,106,820	61.1	1,181,788	61.1	115,901	10.9
65 and Older	195,294	11.1	226,471	12.5	241,024	12.5	45,730	23.4
All Ages	1,764,919	100.0	1,810,364	100.0	1,932,908	100.0	167,989	9.5

Waukesha County								
Age Group	1980[a]		1990		2000		1980-2000 Change	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 5	20,054	7.2	21,801	7.2	23,096	6.4	3,042	15.2
5 through 17	70,098	25.0	61,309	20.1	71,807	19.9	1,709	2.4
18 through 64	169,260	60.3	191,679	62.9	222,430	61.7	53,170	31.4
65 and Over	20,914	7.5	29,926	9.8	43,434	12.0	22,520	107.7
All Ages	280,326	100.0	340,715	100.0	360,767	100.0	80,441	28.7

Village of Wales								
Age Group	1980		1990		2000		1980-2000 Change	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 5	243	12.2	219	8.8	151	6.0	-92	-37.9
5 through 17	580	29.1	701	28.4	614	24.3	34	5.9
18 through 64	1,115	56.0	1,470	59.5	1,653	65.5	538	48.3
65 and Older	54	2.7	81	3.3	105	4.2	51	94.4
All Ages	1,992	100.0	2,471	100.0	2,523	100.0	531	26.7

[a] *The 1980 regional and county populations of 1,764,919 and 280,326, respectively, each include 123 persons who were subtracted from these numbers after the conduct of the 1980 census but whose removal was not allocated to the various age group categories.*

Source: U.S. Bureau of the Census and SEWRPC.

Household Size

The number and size of households is important in land use and public facility planning, because the average household size is used to convert a selected population forecast to the number of housing units needed over the planning period. Throughout the Region, the number of households has been increasing at a faster rate than the total household population. Table 6 compares historical and future year 2020 household sizes in the Region, County, and Village. While the number of households in the Village of Wales has increased, the average household size has decreased from 1960 to 2000, a trend seen throughout the Region and the Nation. The Village, however, had larger household sizes during this time period than either Waukesha County or the Region. The decline in household size can be attributed to a decrease in the number of children per family and an increase in the number of single-parent and single-person households.

Table 3

EDUCATIONAL ATTAINMENT OF PERSONS 25 YEARS OF AGE AND OLDER IN THE REGION, WAUKESHA COUNTY, AND THE VILLAGE OF WALES: 2000

Education Level Attained	Region		Waukesha County		Village of Wales	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Less than Ninth Grade	59,587	4.8	5,537	2.3	29	1.9
Ninth to 12th Grade, No Diploma	136,211	10.9	13,873	5.8	46	3.0
High School Diploma (includes equivalency)	372,955	30.0	66,651	27.6	330	21.4
Some College, No Degree	272,642	21.9	54,483	22.6	379	24.5
Associate Degree	85,761	6.9	18,492	7.7	143	9.2
Bachelor Degree	214,986	17.3	57,050	23.6	400	25.9
Graduate or Professional Degree	101,712	8.2	25,213	10.4	218	14.1
Total	1,243,854	100.0	241,299	100.0	1,545	100.0

Source: U S. Bureau of the Census and SEWRPC.

Table 4

HOUSEHOLD AND FAMILY INCOME IN THE REGION, WAUKESHA COUNTY, AND THE VILLAGE OF WALES: 1999[a]

Range	Region				Waukesha County				Village of Wales			
	Households		Families		Households		Families		Households		Families	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Less than $10,000	56,195	7.5	22,870	4.6	3,698	2.7	1,070	1.1	6	0.7	0	0 0
$10,000 to $14,999	40,804	5.4	14,956	3.0	4,416	3.3	943	0.9	11	1.3	5	0.7
$15,000 to $19,999	43,486	5.8	19,181	3.9	4,700	3.5	1,706	1.7	19	2.3	13	1.8
$20,000 to $24,999	45,407	6.0	22,283	4.5	4,996	3.7	2,319	2.3	3	0.4	3	0.4
$25,000 to $29,999	45,482	6.1	24,802	5.0	5,570	4.1	3,018	3.0	21	2.5	5	0.7
$30,000 to $34,999	47,328	6.3	26,350	5.3	6,527	4.8	3,736	3.7	19	2.3	14	2.0
$35,000 to $39,999	43,294	5.8	26,091	5.3	6,244	4.6	4,068	4.0	31	3.7	15	2.1
$40,000 to $44,999	42,502	5.7	26,693	5.4	6,600	4.9	4,361	4.3	37	4.5	36	5.1
$45,000 to $49,999	39,426	5.2	26,946	5.4	6,842	5.0	4,929	4.9	37	4.5	30	4.2
$50,000 to $59,999	73,140	9.8	54,581	11.0	13,532	10.0	10,763	10.7	115	13.9	108	15.2
$60,000 to $74,999	90,944	12.1	73,423	14.8	19,946	14.7	16,793	16.6	115	13.9	93	13.1
$75,000 to $99,999	91,480	12.2	78,418	15.8	23,264	17.2	20,617	20.4	209	25.2	193	27.2
$100,000 to $124,999	42,385	5.8	37,427	7.6	12,801	9.4	11,742	11.6	90	10.9	85	12.0
$125,000 to $149,999	18,409	2.4	16,384	3.3	5,948	4.4	5,540	5.5	72	8.7	72	10.2
$150,000 to $199,999	14,148	1.9	12,383	2.5	5,115	3.8	4,658	4.6	25	3.0	20	2.8
$200,000 or More	15,204	2.0	13,122	2.6	5,251	3.9	4,745	4.7	18	2.2	18	2.5
Total	749,634	100.0	495,910	100.0	135,450	100.0	101,008	100.0	828	100.0	710	100.0
Average Income	$58,003	--	$68,009	--	$77,665	--	$87,225	--	$82,859	--	$87,616	--
Median Income	$47,710	--	$57,380	--	$62,839	--	$71,773	--	$75,000	--	$77,468	--

[a]*Data reported in 2000 Census of Population and Housing actually represents calendar year 1999.*

Source: U.S. Bureau of the Census and SEWRPC.

Table 6 indicates that the household size, under the intermediate-growth centralized scenario, may be expected to decline in the Region and County, and slightly increase in the Village from 2.98 persons per household in 2000 to 3.09 in 2020. Under the high-growth decentralized alternative, the average household size is expected to increase in all three geographic areas, with the Village experiencing an increase to 3.22 persons per household. The variation in projected household size under the high-growth scenario is generally due to a greater assumed proportion of two-parent households with more children than under the intermediate-growth scenario.

Table 5

HISTORICAL AND PROJECTED NUMBER OF HOUSEHOLDS[a] IN THE REGION, WAUKESHA COUNTY, AND THE VILLAGE OF WALES: 1960-2020

Year	Region			Waukesha County			Village of Wales		
		Change from Previous Period			Change from Previous Period			Change from Previous Period	
	Households	Number	Percent	Households	Number	Percent	Households	Number	Percent
1960	465,913	--	--	42,394	--	--	90	--	--
1970	536,486	70,573	15.1	61,935	19,541	46.1	185	95	105.6
1980	627,955	91,469	17.0	88,552	26,617	43.0	568	383	207.0
1990	676,107	48,152	7.7	105,990	17,438	19.7	721	153	26.9
2000	749,055	72,948	10.8	135,229	29,239	27.6	846	125	17.3
2020 Projections									
Intermediate-Growth Centralized	827,100	78,045	10.4	149,100	13,871	10.3	1,070[b]	224	26.5
High-Growth Decentralized	905,100	156,045	17.2	196,200	60,971	45.1	1,600[b]	754	89.1

[a] *Occupied housing units.*

[b] *Projections for the Village of Wales urban service area.*

Source: U.S. Bureau of the Census and SEWRPC.

Table 6

HISTORICAL AND PROJECTED HOUSEHOLD SIZE IN THE REGION, WAUKESHA COUNTY, AND THE VILLAGE OF WALES: 1960-2020

Year	Region			Waukesha County			Village of Wales		
		Change from Previous Period			Change from Previous Period			Change from Previous Period	
	Persons per Household	Number	Percent	Persons per Household	Number	Percent	Persons per Household	Number	Percent
1960	3.30	--	--	3.66	--	--	3.96	--	--
1970	3.20	-0.10	-3.03	3.66	0.00	0.00	3.74	-0.22	-5.56
1980	2.75	-0.45	-14.06	3.11	-0.55	-15.03	3.51	-0.23	-6.15
1990	2.62	-0.13	-4.73	2.83	-0.28	-9.00	3.43	-0.08	-2.28
2000	2.52	-0.10	-3.82	2.63	-0.20	-7.07	2.98	-0.45	-13.12
2020 Projections									
Intermediate-Growth Centralized	2.46	-0.06	-2.38	2.56	-0.07	-2.66	3.09[a]	0.11	3.69
High-Growth Decentralized	2.56	0.04	1.59	2.68	0.05	1.90	3.22[a]	0.24	8.05

[a] *Projections for the Village of Wales urban service area.*

Source: U S. Bureau of the Census and SEWRPC.

Housing Stock Characteristics

Housing characteristics for the Region, County, and Village are set forth in Table 7. Between 1980 and 2000, the total number of housing units in the Region increased by about 20 percent, while in the County and Village the number of units increased by about 52 and 48 percent, respectively. The Region experienced an increase in owner-occupied housing units of about 21 percent, while Waukesha County and the Village of Wales experienced increases of 49 and 54 percent, respectively, between 1980 and 2000. With respect to renter-occupied housing

Table 7

HISTORICAL POPULATION AND HOUSING CHARACTERISTICS OF THE REGION, WAUKESHA COUNTY, AND THE VILLAGE OF WALES: 1980, 1990, AND 2000

Region								
	1980[a]		1990		2000		1980-2000 Change	
Characteristics	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent
Population								
Household	1,724,567	97.7	1,769,120	97.7	1,885,344	97.5	160,777	9.3
Group Quarters	40,352	2.3	41,244	2.3	47,564	2.5	7,212	17.9
Total	1,764,919	100.0	1,810,364	100.0	1,932,908	100.0	167,989	9.5
Housing Unit Type								
Owner Occupied	389,381	58.5	414,049	57.7	471,553	59.2	82,712	21.1
Renter Occupied	238,574	35.9	262,058	36.6	277,502	34.8	38,929	16.3
Vacant, for Sale	4,478	0.7	3,830	0.5	4,899	0.6	421	9.4
Vacant, for Rent	11,205	1.7	12,615	1.8	16,182	2.0	4,977	44.4
Other Vacant[b]	21,335	3.2	24,623	3.4	26,598	3.4	5,263	24.7
Total	664,973	100.0	717,175	100.0	796,734	100.0	131,761	19.8
Persons Per Occupied Housing Unit	2.75	--	2.62	--	2.52	--	-0.23	-8.4

Waukesha County								
	1980[a]		1990		2000		1990-2000 Change	
Characteristics	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent
Population								
Household	275,616	98.3	300,144	98.3	355,014	98.4	79,398	28.8
Group Quarters	4,710	1.7	4,571	1.7	5,753	1.6	1,043	22.1
Total	280,326	100.0	304,715	100.0	360,767	100.0	80,441	28.7
Housing Unit Type								
Owner Occupied	69,154	74.7	81,927	74.2	103,373	73.7	34,219	49.5
Renter Occupied	19,398	21.0	24,063	21.8	31,856	22.7	12,458	64.2
Vacant, For Sale	957	1.0	704	0.6	844	0.6	-113	-11.8
Vacant, For Rent	679	0.7	1,375	1.2	1,633	1.2	954	140.5
Other Vacant[b]	2,434	2.6	2,383	2.2	2,603	1.8	169	6.9
Total	92,622	100.0	110,452	100.0	140,309	100.0	47,687	51.5
Persons Per Occupied Housing Unit	3.11	--	2.83	--	2.63	--	-0.48	-15.4

Village of Wales								
	1980		1990		2000		1980-2000 Change	
Characteristics	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent
Population								
Household	1,992	100.0	2,471	100.0	2,523	100.0	531	26.7
Group Quarters	0	0.0	0	0.0	0	0.0	0	0.0
Total	1,992	100.0	2,471	100.0	2,523	100.0	531	26.7
Housing Unit Type								
Owner Occupied	468	81.7	603	82.4	722	83.7	254	54.3
Renter Occupied	100	17.5	118	16.1	124	14.4	24	24.0
Vacant, For Sale	2	0.3	1	0.1	3	0.3	1	50.0
Vacant, For Rent	3	0.5	5	0.7	7	0.8	4	133.3
Other Vacant[b]	0	0.0	5	0.7	7	0.8	7	0.0
Total	573	100.0	732	100.0	863	100.0	273	47.6
Persons Per Occupied Housing Unit	3.51	--	3.43	--	2.98	--	-0.53	-15.1

[a]The total population for the Region and County in 1980 was revised by the U.S. Bureau of the Census to 1,767,796 and 280,203, respectively. However, attribute data regarding the number of persons in households and group quarters was not revised.

[b]Includes migratory units, seasonal housing units, and units rented or sold but not occupied.

Source: U.S. Bureau of the Census and SEWRPC.

units during the same period, the Region experienced an increase of about 16 percent; while the County and the Village experienced significantly higher increases of 64 and 24 percent, respectively. The increase in owner-occupied and renter-occupied housing is due to the increasing urbanization of the Wales area and lifestyle changes such as smaller families and more single-person households.

Housing Occupancy and Vacancy Rates

In 2000, about 98 percent of all housing units in the Village were occupied, compared to 96 and 94 percent, respectively, for the County and Region as indicated in Table 7. Housing vacancy rates for owner-occupied and rental housing in 2000 for the three geographic areas are also indicated in Table 7. There were only three vacant "owner-occupied" type housing units, that is, formerly owner-occupied housing unit that were vacant and up for sale, in the Village in 2000. The vacancy rate for rental units, however, was about 5 percent of the total 131 rental units in the Village in 2000.

Standards contained in SEWRPC Planning Report No. 20, *Regional Housing Plan for Southeastern Wisconsin*, suggest that local housing vacancy rates be maintained at a minimum of 4 percent and a maximum of 6 percent for rental units, and at a minimum of 1 percent and a maximum of 2 percent for owner-occupied units over a full range of housing types, sizes, and costs. These vacancy rates are desirable to facilitate population mobility and to enable households to exercise choices in the selection of suitable housing. The Village's 2000 vacancy rate of less than 1 percent for "owner-occupied" housing units was below the recommended standard, while the vacancy rate for the rental housing units was within the standard range. Accordingly, it may be concluded that in 2000 the Village of Wales was in need of additional housing units for owner occupancy.

Housing Age and Building Activity

Table 8 indicates the number of housing units constructed during certain time periods for the Region, County, and Village which, in turn, provides an indication of the general age of the housing stock for each of the geographical areas. The table indicates that the Region and County contain higher percentages of older housing units in comparison to those in the Village of Wales. Most of the housing units, about 77 percent, within the Village of Wales were constructed from 1970 to 2000, whereas about 58 and 37 percent, respectively, were constructed in Waukesha County and the Region during the same period.

Table 9 provides a summary of residential building permit activity in the Village of Wales from 1970 through 2000. During this time period, permits for 640 housing units were issued, of which 502 units, or about 78 percent, were for single-family housing units; 80 units, or about 13 percent, were for two-family housing units; and the remaining 58 units, or 9 percent, were for multi-family housing units. Over the 1970 through 1980 time period, permits were issued for an overall average of about 32 units per year. From 1981 through 1990, permits were issued for an average of about 20 units per year, while from 1991 through 2000, permits for an average of about nine units per year were issued. Even though this data does not specifically indicate whether the units were actually built, it could be assumed that most units were constructed.

Housing Value and Costs

Table 10 sets forth the value of owner-occupied housing units in 2000 in the Region, County, and the Village. The value, as recorded by the U.S. Census, is the homeowner's estimate of what the property, including the house and lot, would bring on the market if it were sold. Value data for units on 10 acres or more were excluded by the U.S. Census in this tabulation. A comparison of housing values among the three geographic areas indicates that the median housing value in the Village was higher than both the County and Region. The average housing value in the Village was also higher than that for the Region, but lower than the County. Most of the owner-occupied housing units, about 78 percent, in the Village were valued between about $125,000 and $250,000 in 2000. Table 10 does not include data on the value of 15 owner-occupied housing units in the Village, since such information was not available from the Census data.

Table 11 provides the monthly owner costs, including debt costs, of mortgaged owner-occupied housing units in the Region, County, and Village. The table, however, does not include the monthly mortgage for housing units located on 10 acres or more. The data indicates that, overall, the 2000 median monthly mortgage cost in the

Table 8

NUMBER AND YEAR OF HOUSING UNIT CONSTRUCTION
IN THE REGION, WAUKESHA COUNTY, AND THE VILLAGE OF WALES

Time Period Constructed	Region		Waukesha County		Village of Wales	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
1990 to March 2000	109,268	13.7	35,125	25.0	146	16.2
1980 to 1989	65,570	8.2	17,185	12.3	163	18.1
1970 to 1979	118,260	14.9	28,475	20.3	384	42.7
1960 to 1969	108,689	13.6	20,024	14.3	92	10.2
1950 to 1959	140,682	17.7	19,406	13.8	23	2.6
1940 to 1949	72,295	9.1	5,919	4.2	25	2.8
Before 1940	181,970	22.8	14,175	10.1	66	7.4
Total	796,734	100.0	140,309	100.0	899	100.0

Source: U.S. Bureau of the Census and SEWRPC.

Table 9

RESIDENTIAL BUILDING ACTIVITY
IN THE VILLAGE OF WALES: 1970-2000

Year	Single-Family Housing Units	Two-Family Housing Units	Multi-Family Housing Units	Total Housing Units
1970	18	0	0	18
1971	21	6	0	27
1972	26	0	0	26
1973	10	2	0	12
1974	5	2	0	7
1975	18	16	20	54
1976	47	20	10	77
1977	65	2	0	67
1978	32	2	0	34
1979	22	0	0	22
1980	8	0	0	8
1981	7	0	0	7
1982	6	0	0	6
1983	12	0	4	16
1984	18	0	0	18
1985	19	0	0	19
1986	19	2	0	21
1987	17	2	8	27
1988	24	2	0	26
1989	30	0	0	30
1990	18	0	8	26
1991	12	0	0	12
1992	14	0	8	22
1993	7	0	0	7
1994	5	0	0	5
1995	9	6	0	15
1996	3	0	0	3
1997	1	4	0	5
1998	5	6	0	11
1999	4	4	0	8
2000	0	4	0	4
Total	502	80	58	640
Average Annual	16	3	2	21

Source: Village of Wales and SEWRPC.

Village, $1,303, was comparatively lower than such cost for the County, $1,366, but higher than the Region, $1,151.

Table 12 provides the 2000 gross rent of renter-occupied housing in the Region, County, and Village. The gross rent data includes contract rents plus estimated utility and heating costs for those contract rents that do not include such costs. This data, however, does not include the gross rent for rental units located on 10 or more acres of lands. The data indicates that in 2000 the median monthly gross rent for renter-occupied housing in the Village was higher than that for the Region, but lower than the County.

EMPLOYMENT

Employment Trends and Projections

Historical and projected future employment levels in the Region, County, and Village are set forth in Table 13. Employment means the number of jobs, regardless of the residency of the worker and whether the jobs are part- or full-time employment. Table 16 indicates that the historical trend of employment growth for the Village of Wales may be expected to continue as indicated in the range of future employment levels considered under the alternative future scenarios. The employment level in the Village urban service area is envisioned under the intermediate-growth centralized scenario to experience an increase to about 600 jobs by the year 2020, an increase of about 40 jobs, or about 7 percent, over the

Table 10

VALUE OF OWNER-OCCUPIED HOUSING UNITS[a]
IN THE REGION, WAUKESHA COUNTY, AND THE VILLAGE OF WALES: 2000

Range	Region		Waukesha County		Village of Wales	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Less than $10,000	282	0.1	50	0.1	0	0.0
$10,000 to $14,999	393	0.1	19	--[b]	0	0.0
$15,000 to $19,999	778	0.2	29	--[b]	0	0.0
$20,000 to $24,999	1,102	0.3	43	--[b]	0	0.0
$25,000 to $29,999	1,775	0.4	62	0.1	0	0.0
$30,000 to $34,999	2,718	0.7	57	0.1	0	0.0
$35,000 to $39,999	3,770	0.9	34	--[b]	0	0.0
$40,000 to $49,999	8,360	2.1	104	0.1	0	0.0
$50,000 to $59,999	10,612	2.6	150	0.1	4	0.6
$60,000 to $69,999	13,687	3.4	253	0.3	5	0.7
$70,000 to $79,999	19,066	4.7	580	0.6	4	0.6
$80,000 to $89,999	27,155	6.7	1,220	1.3	0	0.0
$90,000 to $99,999	31,187	7.8	2,457	2.6	32	4.5
$100,000 to 124,999	66,134	16.4	9,847	10.5	20	2.8
$125,000 to 149,999	63,195	15.7	17,577	18.7	73	10.3
$150,000 to 174,999	49,139	12.2	17,867	19.0	139	19.6
$175,000 to 199,999	32,988	8.2	12,836	13.6	224	31.5
$200,000 to 249,999	31,403	7.8	13,039	13.9	121	17.0
$250,000 to 299,999	17,103	4.3	8,050	8.6	39	5.5
$300,000 to 399,999	12,204	3.0	5,747	6.1	45	6.3
$400,000 to 499,999	4,116	1.0	1,739	1.8	4	0.6
$500,000 to $749,999	3,457	0.9	1,505	1.6	0	0.0
$750,000 to $999,999	1,096	0.3	441	0.5	0	0.0
$1,000,000 or more	918	0.2	381	0.4	0	0.0
Total	402,638	100.0	94,087	100.0	710	100.0
Average Value	$152,328	--	$201,896	--	$191,916	--
Median Value	$130,700	--	$170,400	--	$183,700	--

[a]*Does not include attached and detached houses on 10 acres or more.*

[b]*Less than 0.05 percent.*

Source: U.S. Bureau of the Census and SEWRPC.

2000 level of about 560 jobs. Under the high-growth decentralized scenario, it is envisioned that the Village urban service area would experience an employment level of about 850 jobs by 2020, an increase of about 290 jobs, or about 51 percent, during the same time period.

Occupational Characteristics

Table 14 provides information on the employed population 16 years of age and older by class of worker for the Region, Waukesha County, and the Village of Wales in 2000. In this data set, the number of employed persons is based upon the residency of the workers rather than the location of the job. In 2000, there were 948,484 workers, which is about 49 percent of the total residents, in the Region; 194,423 workers, which is about 54 percent of the total residents, in the County; and 1,456 workers, which is about 58 percent of the total residents, in the Village.

Table 11

NUMBER OF OWNER-OCCUPIED MORTGAGED HOUSING UNITS[a] BY MONTHLY OWNER COSTS IN THE REGION, WAUKESHA COUNTY, AND THE VILLAGE OF WALES: 2000

Actual Monthly Owner Costs with Mortgage	Region		Waukesha County		Village of Wales	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Less than $200	72	--[b]	5	--[b]	0	0.0
$200 to $299	444	0.1	20	--[b]	0	0.0
$300 to $399	2,459	0.9	203	0.3	0	0.0
$400 to $499	6,012	2.1	637	0.9	16	2.6
$500 to $599	10,603	3.7	1,262	1.8	11	1.8
$600 to $699	15,441	5.4	1,921	2.7	11	1.8
$700 to $799	20,365	7.1	2,647	3.7	20	3.2
$800 to $899	24,836	8.6	3,604	5.1	39	6.3
$900 to $999	26,232	9.1	4,523	6.4	42	6.8
$1,000 to $1,249	61,654	21.4	14,156	19.9	141	22.7
$1,250 to $1,499	46,727	16.3	14,123	19.8	141	22.7
$1,500 to $1,999	46,854	16.3	17,394	24.5	116	18.7
$2,000 to $2,499	15,479	5.4	6,388	9.0	48	7.7
$2,500 to $2,999	5,289	1.8	2,158	3.0	18	2.9
$3,000 or more	5,051	1.8	2,072	2.9	17	2.8
Total	287,518	100.0	71,113	100.0	620	100.0
Average Cost	$1,263	--	$1,479	--	$1,390	--
Median Cost	$1,151	--	$1,366	--	$1,303	--

[a] *Does not include attached and detached houses on 10 acres or more.*

[b] *Less than 0.05 percent.*

Source: U.S. Bureau of the Census and SEWRPC.

As may be expected, Table 14 indicates that the majority of workers in all three geographic areas are identified as private wage and salary workers.

Table 15 provides further information on the employed population by occupation for the three geographic areas. As indicated in this table, white collar workers, that is, mostly managerial and professional specialty, and sales and office workers, represented about 61 percent of the employed persons in the Region, about 69 percent for the County, and about 68 percent for the Village. The remaining occupations, consisting mostly of blue collar workers, represented about 39 percent of the employed persons in the Region, about 31 percent in the County, and about 32 percent in the Village.

Place of Work

Table 16 indicates the general place of work of employed population 16 years and older living in Waukesha County and in the Village of Wales in 2000. This table indicates that 119,461 workers living in Waukesha County, or about 62 percent of the employed labor force, also worked in the County; while 73,141 workers, about 38 percent, worked outside Waukesha County. The table indicates that about 148 workers living in the Village of Wales, or about 10 percent of the employed labor force, also worked in the Village; while 1,285 workers, or about 90 percent, worked outside the Village. Table 16 thus indicates that a substantial number of workers living in the Village of Wales were employed outside their community of residence.

Table 12

NUMBER OF RENTER-OCCUPIED HOUSING UNITS[a] BY MONTHLY GROSS RENT IN THE REGION, WAUKESHA COUNTY, AND THE VILLAGE OF WALES: 2000

Monthly Gross Rent	Region		Waukesha County		Village of Wales	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Less than $100	1,282	0.5	170	0.5	0	0.0
$100 to $149	2,437	0.9	204	0.6	0	0.0
$150 to $199	7,989	2.9	515	1.6	0	0.0
$200 to $249	5,479	2.0	332	1.1	0	0.0
$250 to $299	6,005	2.2	313	1.0	0	0.0
$300 to $349	8,604	3.1	319	1.0	0	0.0
$350 to $399	14,019	5.1	535	1.7	5	3.8
$400 to $449	19,211	7.0	813	2.6	0	0.0
$450 to $499	24,743	9.0	1,322	4.2	14	10.7
$500 to $549	28,126	10.2	1,643	5.2	10	7.6
$550 to $599	25,738	9.3	2,523	8.0	29	22.2
$600 to $649	20,583	7.5	2,929	9.3	16	12.2
$650 to $699	17,399	6.3	2,939	9.4	0	0.0
$700 to $749	13,609	4.9	2,656	8.5	5	3.8
$750 to $799	18,140	6.6	4,090	13.0	12	9.2
$800 to $899	10,451	3.8	2,537	8.1	10	7.6
$900 to $999	10,220	3.7	3,016	9.6	22	16.8
$1,000 to $1,249	2,877	1.0	745	2.4	0	0.0
$1,250 to $1,499	1,796	0.7	561	1.8	8	6.1
$1,500 to $1,999	29,010	10.5	2,078	6.6	0	0.0
$2,000 or more	919	0.3	249	0.8	0	0.0
No Cash Rent	7,012	2.5	959	3.0	0	0.0
Total	275,649	100.0	31,448	100.0	131	100.0
Average Rent	$603	--	$753	--	$789	--
Median Rent	$590	--	$726	--	$673	--

[a] *Does not include one-unit attached or detached houses on 10 acres or more.*

Source: U.S. Bureau of the Census and SEWRPC.

SUMMARY

Inventory is the first operational step in the planning process. It is important that the study area be properly described before recommendations that will invariably affect the future of that area are formulated. This chapter has presented information on the historical characteristics of the population, housing, and employment for the Village of Wales, Waukesha County, and the Southeastern Wisconsin Region, and on anticipated changes in these socioeconomic factors over time. Of particular significance to the preparation of the Village of Wales master plan are the following findings:

- The Village of Wales has historically experienced an increase in population since its incorporation in 1922. During the earlier part of this time period, from 1930 to 1950, the population of the Village of Wales steadily increased nearly 80 percent to 237 residents. Following this time period, the population of the Village increased significantly from 237 persons in 1950 to 2,523 in 2000.

Table 13

HISTORICAL AND PROJECTED EMPLOYMENT[a] IN THE VILLAGE OF WALES: 1970-2020

Year	Village of Wales		
	Employment	Change from Previous Period	
		Number	Percent
1970	190	--	--
1980	390	200	105.3
1990	490	100	25.6
2000	560	70	14.3
2020 Projections			
Intermediate-Growth Centralized	600[b]	40	7.1
High-Growth Decentralized	850[b]	290	51.2

[a]*Employment means the number of jobs, regardless of the residency of the worker and whether the jobs are part- or full-time employment.*

[b]*Projections for the Village of Wales urban service area.*

Source: U. S. Bureau of Economic Analysis and SEWRPC.

Table 14

EMPLOYED PERSONS 16 YEARS OF AGE AND OLDER BY CLASS OF WORKER IN THE REGION, WAUKESHA COUNTY, AND THE VILLAGE OF WALES: 2000

Class of Worker[a]	Region		Waukesha County		Village of Wales	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Private Wage and Salary Worker	776,609	81.9	161,074	82.8	1,070	73.5
Federal Government Worker	14,790	1.6	2,426	1.2	22	1.5
State Government Worker	21,740	2.3	2,822	1.5	40	2.7
Local Government Worker	70,245	7.4	11,429	5.9	193	13.3
Self-Employed Worker	63,652	6.7	16,326	8.4	131	9.0
Unpaid Family Worker	1,448	0.1	346	0.2	0	0.0
Total	948,484	100.0	194,423	100.0	1,456	100.0

[a]*Does not include workers in the agriculture, forestry, fishing, and hunting industries.*

Source: U.S. Bureau of the Census and SEWRPC.

- Alternative future regional scenarios prepared by the Regional Planning Commission provide a range of population, household, and employment projections for consideration by the Village of Wales. Population in the Village of Wales, which stood at 2,523 in 2000, is envisioned to increase under the intermediate-growth centralized scenario by approximately 787 residents, or 31 percent, to 3,310 residents during the 2000 to 2020 time period. Alternatively, under the high-growth decentralized scenario, the population of the Village urban service area is envisioned to increase by approximately 2,627 residents, or 104 percent, to 5,150 residents in 2020.

- The number of households or occupied housing units in the Village of Wales, which stood at 846 in 2000, is envisioned to increase under the intermediate-growth centralized scenario by approximately 224 households, or 27 percent, to 1,070 households during the 2000 to 2020 time period. Alternatively, under the high-growth decentralized scenario, the Village urban service area is

Table 15

EMPLOYED PERSONS 16 YEARS AND OLDER BY OCCUPATION
IN THE REGION, WAUKESHA COUNTY, AND THE VILLAGE OF WALES: 2000

Occupation	Region		Waukesha County		Village of Wales	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Managerial and Professional Specialty						
Management, business, and financial operations	128,568	13.5	34,305	17.6	198	13.6
Professional specialty	194,243	20.4	44,543	22.8	424	29.0
Service						
Health care support	20,942	2.2	3,088	1.6	38	2.6
Protective service	16,392	1.7	1,984	1.0	12	0.8
Food preparation and serving	44,080	4.6	6,660	3.4	56	3.8
Building and grounds, cleaning and maintenance	25,577	2.7	3,503	1.8	24	1.6
Personal care and service	22,303	2.3	4,250	2.2	16	1.1
Sales and Office						
Sales	102,766	10.8	24,550	12.6	150	10.3
Office and administrative support	154,285	16.2	30,921	15.8	223	15.3
Farming, Fishing, and Forestry	2,273	0.2	268	0.1	4	0.3
Construction, Extraction, and Maintenance						
Construction and extraction	39,398	4.1	8,398	4.3	80	5.5
Installation, maintenance, and repair	33,368	3.5	6,967	3.5	39	2.7
Production, Transportation, and Material Moving						
Production	114,633	12.0	17,733	9.1	141	9.6
Transportation and material moving	55,615	5.8	8,120	4.2	55	3.8
Total	954,443	100.0	195,290	100.0	1,460	100.0

Source: U.S. Bureau of the Census and SEWRPC.

Table 16

PLACE OF WORK OF WORKERS 16 YEARS OF AGE AND OLDER
LIVING IN WAUKESHA COUNTY AND THE VILLAGE OF WALES: 2000

Place of Work	Waukesha County		Village of Wales	
	Number of Workers	Percent of Total	Number of Workers	Percent of Total
Worked in Place of Residence	119,461	62.0	148	10.3
Worked Outside Place of Residence	73,141	38.0	1,285	89.7
Total	192,602	100.0	1,433	100.0

Source: U.S. Bureau of the Census and SEWRPC.

envisioned to experience an increase of approximately 754 households, or 89 percent, to 1,600 households in 2020.

- The average household size in the Village of Wales is envisioned to slightly increase under the intermediate-growth centralized scenario from 2.98 persons per household in 2000 to 3.09 in 2020. Under the high-growth decentralized scenario, the average household size in the Village urban service area is also envisioned to increase to about 3.22 persons per household in 2020.

- Employment in the Village of Wales, which stood at approximately 560 jobs in 2000, is envisioned to increase under the intermediate-growth centralized scenario by approximately 40 jobs, or 7 percent, to 600 jobs in 2020. Alternatively, under the high-growth decentralized scenario, it is envisioned that the Village urban service area would experience an increase of approximately 290 jobs, or 51 percent, to 850 jobs in 2020.

Chapter III

NATURAL RESOURCES

The conservation and wise use of the natural resources of an area are fundamental to achieving sound development and to providing a pleasant and habitable environment. This planning effort recognizes that the natural resources of the Village of Wales study area are limited and that any development needs to be properly adjusted to these resources to avoid serious environmental problems and to maintain resources for the future. A sound evaluation and analysis of the natural resource base is, therefore, particularly important to planning for the physical development of an area.

This chapter presents an inventory and analysis of the natural resource base of the Village of Wales study area. Included is descriptive information regarding soils, topography, scenic overlooks, water resources, vegetation, wildlife habitat, natural areas, and park and open space sites. Environmentally sensitive natural resources such as hydric soils, lakes, streams, floodplains, wetlands, woodlands, steep slopes, and wildlife habitat generally occur in elongated areas of the landscape and are interdependent. The wise use and preservation of one resource is critical to the continued existence of others. Areas of concentrated natural resources have long been delineated by the Regional Planning Commission and have become widely known as environmental corridors. The environmental corridors encompass those areas in which concentrations of recreational, aesthetic, ecological, and cultural resources occur, and which, therefore, should be preserved and protected in an essentially open, natural state.

SOILS

Soil properties exert a strong influence on the manner in which people use land. Soils are an irreplaceable resource, and mounting pressures upon land are constantly making this resource more and more valuable. A need exists, therefore, in any planning effort to examine not only how land and soils are presently used, but also how they can best be used and managed for future use.

A soil survey of the Southeastern Wisconsin Region was completed in 1965 by the U.S. Department of Agriculture, Soil Conservation Service,[1] under contract to the Regional Planning Commission. The results of the survey are set forth in SEWRPC Planning Report No. 8, *Soils of Southeastern Wisconsin*, June 1966; and in five county reports subsequently published by the Soil Conservation Service. Soil survey information for the Village of Wales study area is included in the *Soils Survey of Waukesha County*, published in June 1971. The soil survey data are definitive with respect to physical, chemical, and biological properties. The survey also includes interpretations of the soil properties for planning, engineering, agricultural, and resource conservation purposes.

[1]*The U.S. Soil Conservation Service was renamed the U.S. Natural Resources Conservation Service in 1996.*

Soil Suitability for Development Using Onsite Sewage-Disposal Systems

As shown in Map 4 and Table 17, approximately 5.7 square miles, or about 23 percent of the study area, are covered by soils unsuitable for the use of conventional onsite sewage-disposal systems, i.e., septic tanks with underground disposal fields. These soils have low permeability rates, high or fluctuating water tables, high shrink-swell ratios, and may be located on steep slopes and be subject to flooding and surface ponding. The suitability of an additional approximately 7.8 square miles, or about 31 percent of the study area, cannot be determined without detailed site inspections. Such inspections would probably reveal additional lands that have underlying soils unsuitable for the use of absorption fields for septic tank effluent. As indicated in Table 17, only approximately 10.9 square miles, or about 43 percent of the study area, can be generally identified on the basis of the soil surveys as suitable for septic tank systems.

The data in Table 17 and a comparison between Maps 4 and 5 shows that the development of the mound sewage-disposal system and other alternative systems may significantly increase the amount of area which may be able to accommodate development served by onsite sewage-disposal systems. It should be recognized that Maps 4 and 5 and are intended to illustrate the overall pattern of soil suitability for onsite sewage-disposal systems. Detailed site investigations based on the requirements of Chapter Comm 83 of the *Wisconsin Administrative Code* are necessary to determine if the soils on a specific parcel of land are suitable for development proposed to be served by either type of onsite system. In general, areas covered by soils that are unsuitable for both conventional and mound sewage-disposal systems should not be considered for urban development unless public sanitary sewers are provided.

The soil ratings for onsite sewage-disposal systems presented on Maps 4 and 5 reflect the requirements of Chapter Comm 83 of the *Wisconsin Administrative Code* as it existed in 1999. The Wisconsin Department of Commerce adopted new rules for governing onsite sewage-disposal systems in 2000 which increased the number of legal onsite sewage-disposal systems that could be used from four to nine systems. The Department envisions that other systems will also be approved in the future. This new rule significantly alters the existing regulatory framework, and will increase the area in which onsite disposal systems may be utilized. The new rule, however, includes a provision that allows counties the option of waiting three years before implementing the new septic system rules and the use of the new types of systems. This provision would allow local governments more time to enact land use plans that will determine which areas may be developed with onsite sewage-disposal systems and to train inspectors on the different types of septic designs. Waukesha County delayed the use of these new septic technologies for new developments until January 1, 2003.

Soil Suitability for Residential Development Using Public Sanitary Sewer Service

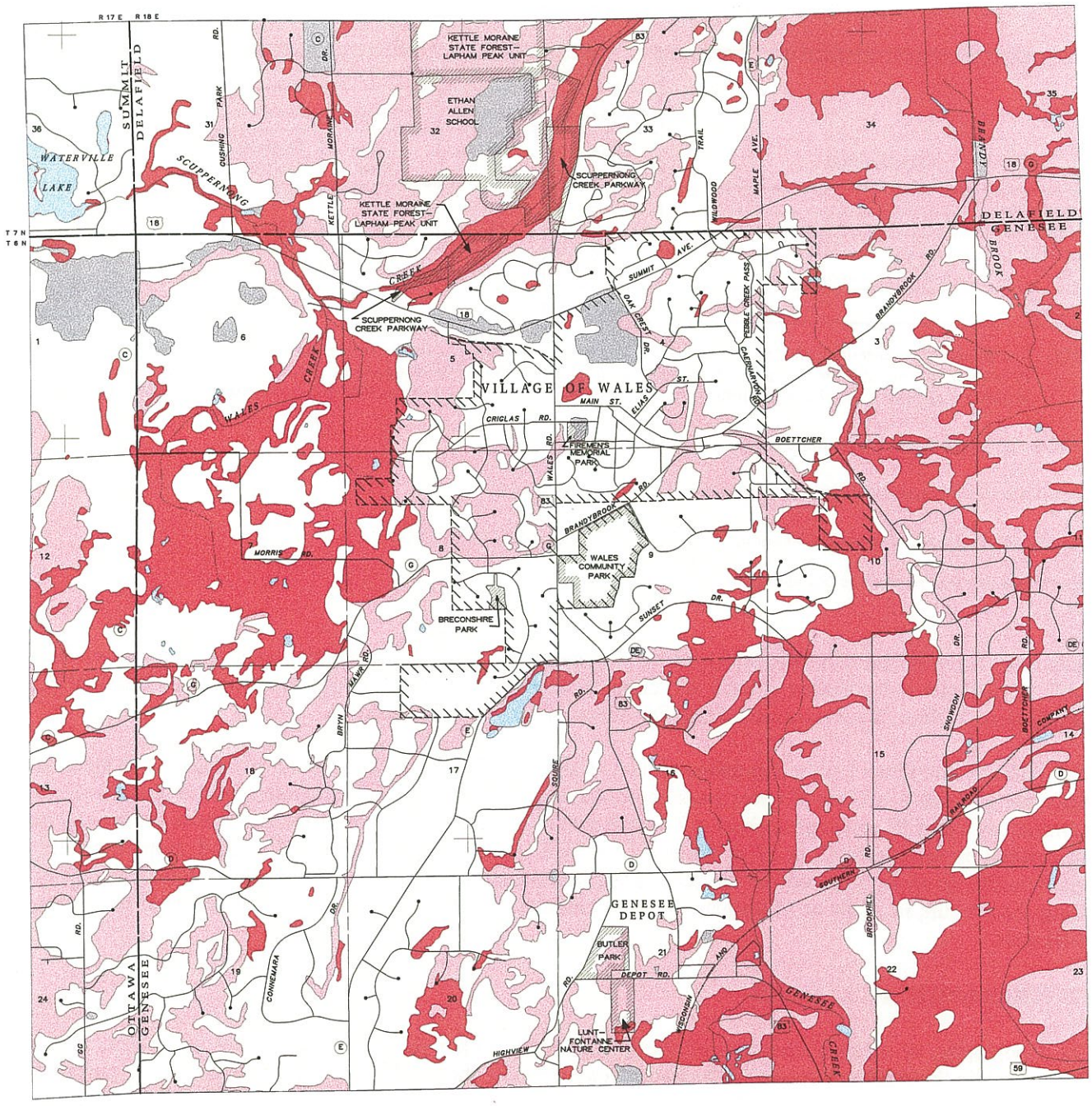
Map 6 and Table 17 indicate that about 7.9 square miles, or about 31 percent of the study area, are covered by soils that would have severe limitations for residential development, if served by public sanitary sewer facilities. Such areas may also be considered poorly suited for residential development of any kind. The severe limitations are due to such soil properties as high or fluctuating water tables, slow permeability rates, erodibility on slopes, low bearing capacity, high shrink-swell potential, and frost heave potential. These soils are found throughout the study area, but primarily in steeply sloped areas and in association with rivers, streams, floodlands, wetlands, and other low-lying areas. The development of these areas for residential use would likely require particularly careful planning and above average design and management to overcome the limitations; such developments may be expected to be more costly and difficult than developments in areas with more suitable soils. Soils shown on Map 6 as having slight or moderate limitations for such developments encompass approximately 16.5 square miles, or about 66 percent of the study area. The remaining soils encompassing about 0.7 square mile, or about 3 percent of the study area, are covered by mostly surface water or are soils that have not been classified.

Soil Suitability for Agriculture

Much of the outlying area in the Village of Wales study area is covered by soils that are well suited for the production of crops. Such farmland has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when properly treated and managed. Soil suitability for agricultural use within the

Map 4

SOIL SUITABILITY FOR CONVENTIONAL ONSITE SEWAGE-DISPOSAL SYSTEMS IN THE VILLAGE OF WALES STUDY AREA



UNSUITABLE: AREAS COVERED BY SOILS WHICH HAVE A HIGH PROBABILITY OF NOT MEETING THE 1999 CRITERIA OF CHAPTER COMM 83 OF THE WISCONSIN ADMINISTRATIVE CODE GOVERNING CONVENTIONAL ONSITE SEWAGE-DISPOSAL SYSTEMS

UNDETERMINED: AREAS COVERED BY SOILS HAVING A RANGE OF CHARACTERISTICS AND/OR SLOPES WHICH SPAN THE 1999 CRITERIA OF CHAPTER COMM 83 OF THE WISCONSIN ADMINISTRATIVE CODE GOVERNING CONVENTIONAL ONSITE SEWAGE-DISPOSAL SYSTEMS SO THAT NO CLASSIFICATION CAN BE ASSIGNED

SUITABLE: AREAS COVERED BY SOILS HAVING A HIGH PROBABILITY OF MEETING THE 1999 CRITERIA OF CHAPTER COMM 83 OF THE WISCONSIN ADMINISTRATIVE CODE GOVERNING CONVENTIONAL ONSITE SEWAGE-DISPOSAL SYSTEMS

OTHER: AREAS CONSISTING FOR THE MOST PART OF DISTURBED LAND FOR WHICH NO INTERPRETIVE DATA ARE AVAILABLE

SURFACE WATER

NOTE: THIS MAP REFLECTS STATE ADMINISTRATIVE CODE REQUIREMENTS IN EFFECT PRIOR TO JULY 2000. ONSITE INVESTIGATIONS ARE ESSENTIAL TO THE DETERMINATION OF WHETHER A SPECIFIC TRACT OF LAND IS SUITABLE FOR DEVELOPMENT TO BE SERVED BY A CONVENTIONAL ONSITE SEWAGE-DISPOSAL SYSTEM UNDER CURRENT COMM 83 REQUIREMENTS.

GRAPHIC SCALE

0 2500 5000 FEET

Source: Wisconsin Department of Commerce, U. S. Natural Resources Conservation Service, and SEWRPC.

Table 17

SOIL SUITABILITY FOR SELECTED LAND USES
IN THE VILLAGE OF WALES STUDY AREA

Classification	Onsite Sewage-Disposal Systems				Residential Development if Served by Public Sanitary Sewer	
	Conventional Systems		Mound Systems			
	Square Miles	Percent of Total	Square Miles	Percent of Total	Square Miles	Percent of Total
Unsuitable	5.7	22.7	5.2	20.7	7.9[a]	31.5
Undetermined	7.8	31.1	5.7	22.7	--	--
Suitable	10.9	43.4	13.5	53.8	16.5[b]	65.7
Other[c]	0.7	2.8	0.7	2.8	0.7	2.8
Total	25.1	100.0	25.1	100.0	25.1	100.0

NOTE: Soil suitability determinations for onsite sewage disposal systems are based on the requirements of Chapter Comm 83 of the Wisconsin Administrative Code in effect prior to July 2003. Onsite investigations are essential to the determination of whether a specific tract of land is suitable for an onsite sewage disposal system under current Comm 83 requirements.

[a] *Includes soils having severe limitations for such development.*

[b] *Includes soils having slight or moderate limitations for such development.*

[c] *Includes surface water and disturbed areas for which no soil survey data are available.*

Source: U.S. Natural Resources Conservation Service and SEWRPC.

study area, based on the U.S. Natural Resources Conservation Service classification system, is shown on Map 7. Table 18 provides a description of each soil class. Generally, Class I and II soils are considered National Prime Farmland, and Class III soils are considered Farmlands of Statewide Importance.

Map 7 shows that Class I soils encompass about 0.1 square mile, or less than 1 percent of the study area. Areas identified on Map 7 as Class II encompass about 8.2 square miles, or about 33 percent of the study area. Areas identified as Class III encompass about 4.7 square miles, or about 19 percent of the study area. Additional areas are covered by soils rated Class IV or lower if undrained and Class II or Class III if drained. Approximately 1.4 square miles, or about 5 percent of the study area, have been drained and therefore fall into the Class II or III rating. As a result, in all about 14.4 square miles, or about 57 percent of the study area, are covered by Class I, II, or III soils.

TOPOGRAPHIC FEATURES

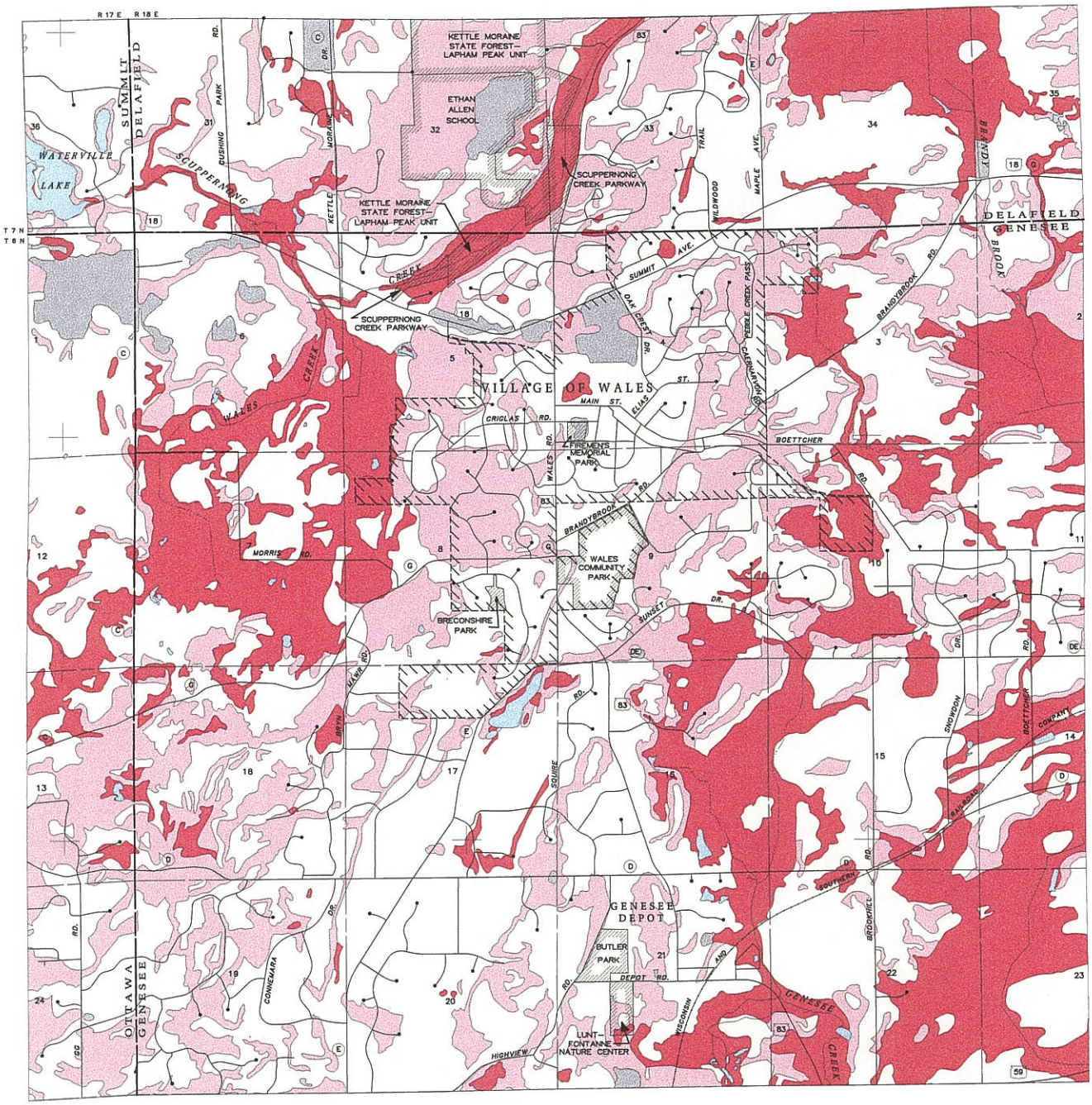
The topography, or relative elevation of the land surface, within the Village of Wales study area has been determined by the configuration of the bedrock geology and by the overlying glacial deposits. The topography of the study area, shown in 10-foot interval contours, is depicted on Map 8. Surface elevations range from a low of about 810 feet above mean sea level in the east part of the study area by Genesee Creek and Brandy Brook, to a high of more than 1,110 and 1,230 feet above mean sea level, respectively, in the southwest and north central parts. In general, the topography of the study area is level to rolling hills, with the low-lying areas associated with a lake, stream valleys, or wetland areas.

Slopes

Slope is an important determinant of land uses practicable on a given parcel of land. Lands with steep slopes are generally poorly suited for urban development as well as for most agricultural purposes and, therefore, should be maintained in natural cover for erosion control. Lands with less severe slopes may be suitable for certain agricultural uses, such as pasture, and for certain urban uses, such as carefully designed low density residential areas. Lands which are gently sloping or nearly level are best suited to agricultural production and to medium-

Map 5

SOIL SUITABILITY FOR MOUND SEWAGE-DISPOSAL SYSTEMS IN THE VILLAGE OF WALES STUDY AREA



UNSUITABLE: AREAS COVERED BY SOILS WHICH HAVE A HIGH PROBABILITY OF NOT MEETING THE 1999 CRITERIA OF CHAPTER COMM 83 OF THE WISCONSIN ADMINISTRATIVE CODE GOVERNING MOUND SEWAGE-DISPOSAL SYSTEMS

UNDETERMINED: AREAS COVERED BY SOILS HAVING A RANGE OF CHARACTERISTICS AND/OR SLOPES WHICH SPAN THE 1999 CRITERIA OF CHAPTER COMM 83 OF THE WISCONSIN ADMINISTRATIVE CODE GOVERNING MOUND SEWAGE-DISPOSAL SYSTEMS SO THAT NO CLASSIFICATION CAN BE ASSIGNED

SUITABLE: AREAS COVERED BY SOILS HAVING A HIGH PROBABILITY OF MEETING THE 1999 CRITERIA OF CHAPTER COMM 83 OF THE WISCONSIN ADMINISTRATIVE CODE GOVERNING MOUND SEWAGE-DISPOSAL SYSTEMS

OTHER: AREAS CONSISTING FOR THE MOST PART OF DISTURBED LAND FOR WHICH NO INTERPRETIVE DATA ARE AVAILABLE

SURFACE WATER

NOTE: THIS MAP REFLECTS STATE ADMINISTRATIVE CODE REQUIREMENTS IN EFFECT PRIOR TO JULY 2000. ONSITE INVESTIGATIONS ARE ESSENTIAL TO THE DETERMINATION OF WHETHER A SPECIFIC TRACT OF LAND IS SUITABLE FOR DEVELOPMENT TO BE SERVED BY A MOUND SEWAGE-DISPOSAL SYSTEM UNDER CURRENT COMM 83 REQUIREMENTS.

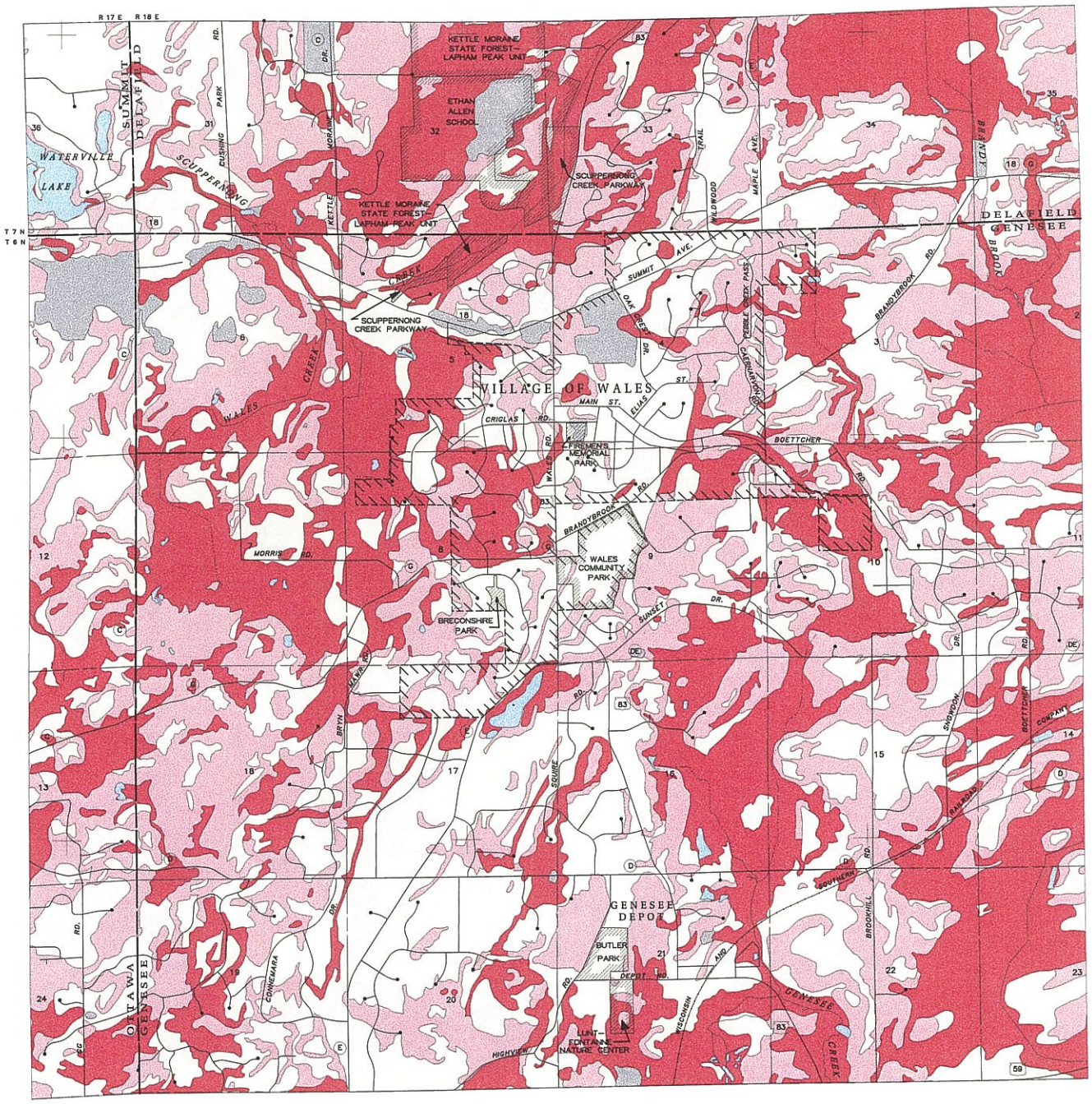
GRAPHIC SCALE

0 2500 5000 FEET

Source: Wisconsin Department of Commerce, U. S. Natural Resources Conservation Service, and SEWRPC.

Map 6

SOIL SUITABILITY FOR RESIDENTIAL DEVELOPMENT IF SERVED BY PUBLIC SANITARY SEWER IN THE VILLAGE OF WALES STUDY AREA



AREAS COVERED BY SOILS HAVING SEVERE LIMITATIONS FOR RESIDENTIAL DEVELOPMENT IF SERVED BY PUBLIC SANITARY SEWER

AREAS COVERED BY SOILS HAVING MODERATE LIMITATIONS FOR RESIDENTIAL DEVELOPMENT IF SERVED BY PUBLIC SANITARY SEWER

AREAS COVERED BY SOILS HAVING SLIGHT LIMITATIONS FOR RESIDENTIAL DEVELOPMENT IF SERVED BY PUBLIC SANITARY SEWER

AREAS CONSISTING FOR THE MOST PART OF DISTURBED LAND FOR WHICH NO INTERPRETIVE DATA ARE AVAILABLE

SURFACE WATER

GRAPHIC SCALE

0 2500 5000 FEET

Source: U. S. Natural Resources Conservation Service and SEWRPC.

Map 7

AGRICULTURAL SOIL CAPABILITY IN THE VILLAGE OF WALES STUDY AREA

CLASS I

CLASS II

CLASS II IF DRAINED; UNDRAINED SOILS ARE CLASS V OR VI

CLASS II IF DRAINED; UNDRAINED SOILS ARE CLASS III (NONE)

CLASS III

CLASS III IF DRAINED; UNDRAINED SOILS ARE CLASS V

CLASS IV, V, VI, VII AND VIII SOILS AND UNCLASSIFIED AREAS

SURFACE WATER

GRAPHIC SCALE

0 2500 5000 FEET

Source: U. S. Natural Resources Conservation Service and SEWRPC.

and high-density residential, industrial, or commercial uses. It should also be noted that slope is directly related to water runoff and erosion hazards and, therefore, the type and extent of both urban and rural land uses should be carefully adjusted to the slope of the land. In general, slopes of 12 percent or more should be considered unsuitable for urban development and most types of agricultural land uses and, therefore, should be maintained in essentially natural, open uses. Urban development, if allowed on such slopes, would require careful planning and above average site-specific design and management. As shown on Map 9, areas having a slope of 12 percent or greater encompass about 5.6 square miles, or about 22 percent of the study area and are found throughout the study area.

Table 18

AGRICULTURAL SOIL CAPABILITY CLASSES

Class	Qualitative Description
I	Soils have few limitations that restrict their use.
II	Soils have some limitations that reduce the choice of plants or require moderate conservation practices.
III	Soils have moderate or severe limitations that reduce the choice of plants, require special conservation practices, or both.
IV	Soils have very severe limitations that restrict the choice of plants, require careful management, or both.
V	Soils are subject to little or no erosion but have other limitations, impractical to remove, that limit their use largely to pasture, range, woodland, or wildlife food and cover.
VI	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture, range, woodland, or wildlife food and cover.
VII	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to grazing, woodland, or wildlife.
VIII	Soils and landforms have limitations that preclude their use for commercial plant production and restrict their use to recreation, wildlife, water supply, or to aesthetic purposes.

Source: U.S. Natural Resources Conservation Service and SEWRPC.

Scenic Overlooks

Scenic overlooks are defined as areas that provide a panoramic or picturesque view. There are two important components of a scenic overlook: the picturesque view itself, which usually consists of a diversity of natural or cultural features, and the vantage point or overlook from which the scene and its features are observed. In identifying the scenic overlooks in the Wales area three basic criteria were applied: 1) the view should provide a variety of features that exist harmoniously in a natural or rural landscape; 2) there should be a dominant or particularly interesting feature, such as a river or lake, which serves as a focal point of the picturesque view; and 3) the overlook should permit an unobstructed observation area from which a variety of natural features can be seen.

An inventory of scenic overlooks meeting the aforementioned criteria was conducted. Using the best available topographic maps, all areas with a relief greater than 30 feet and a slope of 12 percent or more were identified. Areas of steep slope with a ridge of at least 200 feet in length and a view of at least three features, including surface water, wetlands, woodlands, or agricultural lands within approximately one-half mile of the ridge, were identified as scenic overlooks. In the Village of Wales study area, 40 scenic overlooks were identified. Most of these were long, continuous ridge lines and are located west and north of the Village in the general Kettle Moraine interlobate geological area and along the waterways of Wales Creek, Scuppernong Creek, Brandy Brook, and Genesee Creek. The topography and location of the scenic overlooks are shown on Map 8.

WATER RESOURCES

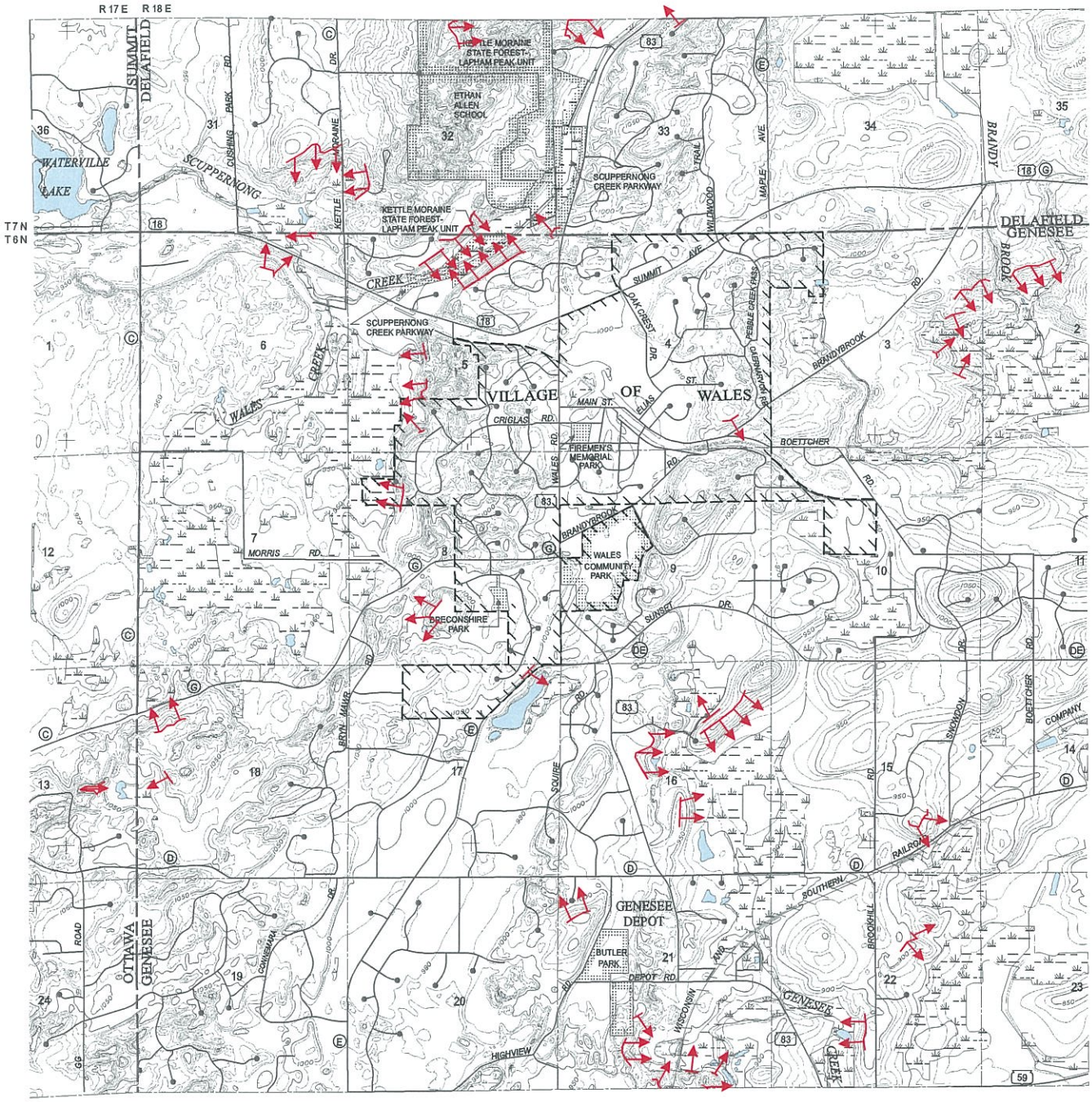
Surface water resources such as lakes and streams and their associated floodplains, form a particularly important element of the natural resource base of the Village of Wales study area. The contribution of these resources, including groundwater, is immeasurable to the economic development, recreational activity, and aesthetic quality of the Wales area.

Watersheds, Subwatersheds, and Subbasins

The study area lies within two watersheds, the Rock River and Fox River watersheds, which are part of the larger Mississippi River drainage system. As shown on Map 10, these watersheds can be divided into subwatersheds in which the Rock River watershed includes the Bark River and Scuppernong Creek subwatersheds and the Fox River watershed includes the Jericho Creek, Genesee Creek, Pebble Creek, and Pewaukee Lake subwatersheds.

Map 8

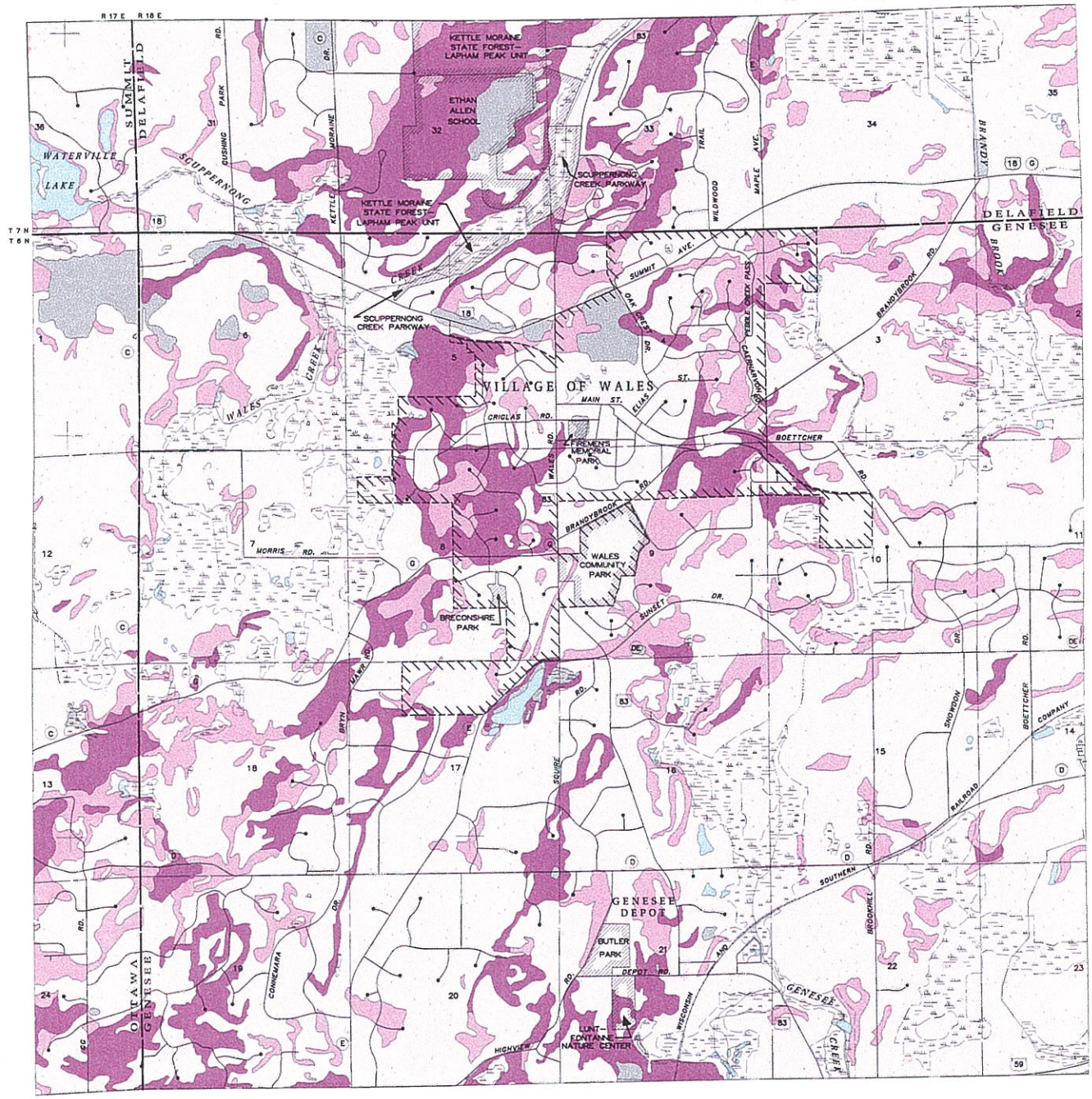
TOPOGRAPHY AND SCENIC OVERLOOKS IN THE VILLAGE OF WALES STUDY AREA



Source: SEWRPC.

Map 9

SLOPE ANALYSIS FOR THE VILLAGE OF WALES STUDY AREA



- SLOPES RANGING FROM 0 TO 12 PERCENT
- SLOPES RANGING FROM 12 TO 20 PERCENT
- SLOPES 20 PERCENT OR GREATER
- AREAS FOR WHICH SLOPE DATA ARE NOT AVAILABLE FROM SOIL SURVEY
- SURFACE WATER

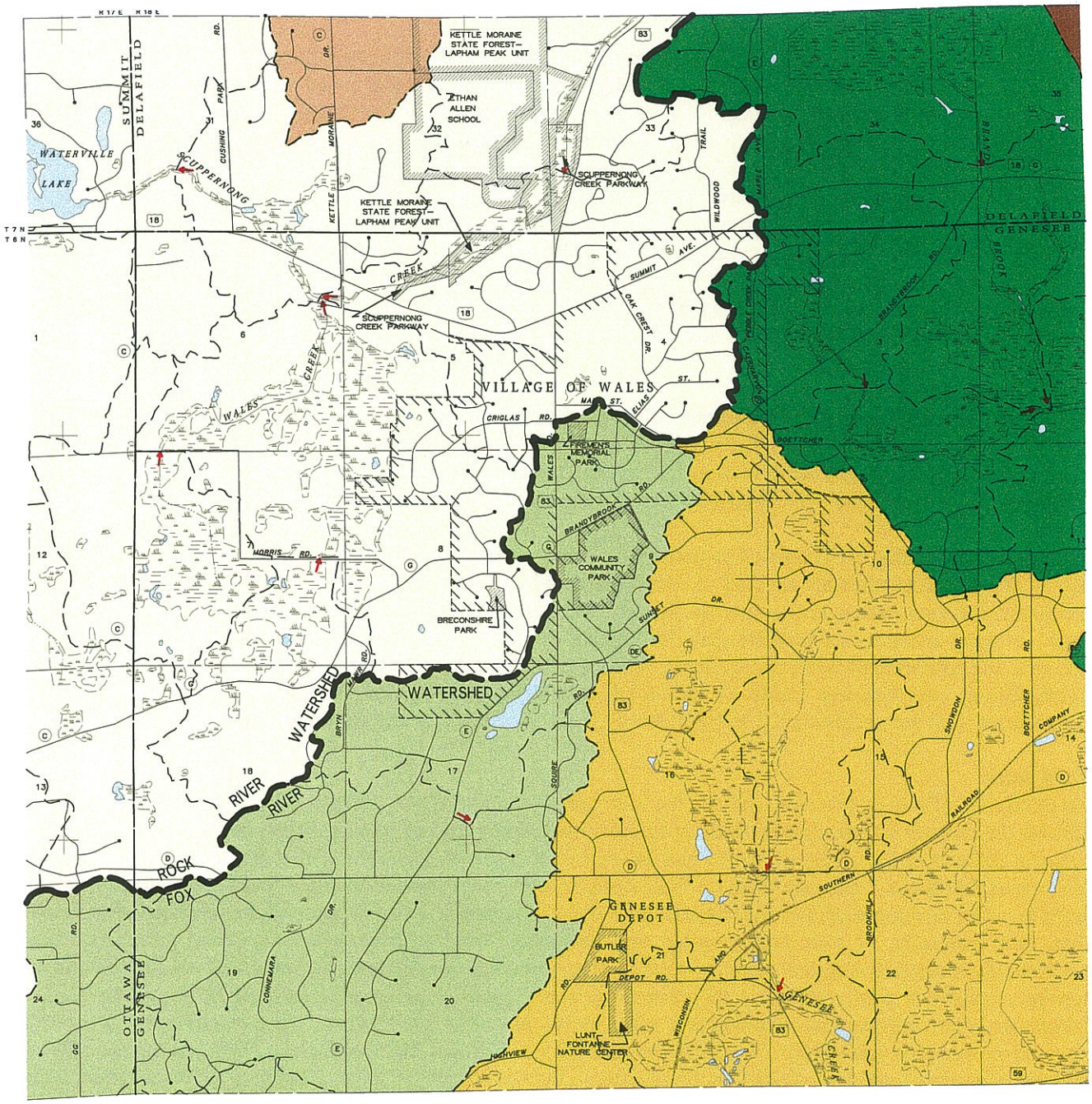
GRAPHIC SCALE

0 2500 5000 FEET

Source: U.S. Natural Resources Conservation Service and SEWRPC.

Map 10

WATERSHED FEATURES IN THE VILLAGE OF WALES STUDY AREA



WATERSHED BOUNDARY

SUBWATERSHED BOUNDARY

SUBBASIN BOUNDARY

PERENNIAL STREAM OR WATERCOURSE

INTERMITTENT STREAM OR WATERCOURSE

DIRECTION OF SURFACE DRAINAGE FLOW AT DISCHARGE POINT

SURFACE WATER

SUBWATERSHEDS

- BARK RIVER
- SCUPPERNONG CREEK
- JERICHO CREEK
- GENESEE CREEK
- PEBBLE CREEK
- PEWAUKEE LAKE

GRAPHIC SCALE

0 2500 5000 FEET

Source: SEWRPC.

The Village of Wales is located in both watershed areas and mostly within the Scuppernong Creek, Jericho Creek, Genesee Creek, and Pebble Creek subwatersheds. For stormwater management planning purposes, all of the subwatersheds may be further subdivided into individual drainage areas, termed subbasins, also shown on Map 10.

Surface Water

Surface water resources, consisting of streams, rivers, lakes, and associated floodplains, form an important element of the natural resource base. Lakes and rivers constitute a focal point for water-related recreational activities, provide an attractive setting for properly planned residential development, and, when viewed in the context of the total landscape, greatly enhance the aesthetic quality of the environment. Lakes and rivers are, however, readily susceptible to degradation through improper land use development and management. Water quality can be degraded by excessive pollutant loads, including nutrient loads, from malfunctioning and improperly located onsite sewage-disposal systems; sanitary sewer overflows; urban runoff, including runoff from construction sites; and careless agricultural practices. The water quality of lakes and rivers may also be adversely affected by the excessive development of riverine areas and the inappropriate filling of peripheral wetlands, which removes valuable nutrient and sediment traps while adding to nutrient and sediment sources. The surface water resources in the Village of Wales study area are shown on Map 11.

Lakes, Rivers, and Streams

Lakes have been classified by the Regional Planning Commission as being either major or minor. Major lakes have 50 acres or more of surface water area, and minor lakes have less than 50 acres of surface water area. A portion of an approximately 68-acre major lake, Waterville Lake, lies within the far northwestern part of the Village of Wales study area. No classified minor lakes lie within the study area.

Rivers and streams that are classified as perennial or intermittent also exist within the study area as indicated on Map 11. Perennial streams are defined as watercourses which maintain, at a minimum, a small continuous flow throughout the year except under unusual drought conditions. Intermittent streams are defined as watercourses which do not maintain a continuous flow throughout the year. A total of approximately 20.3 linear miles of perennial and intermittent watercourses exist within the study area, including Wales Creek, Scuppernong Creek, Brandy Brook, and Genesee Creek. Of this total, about 12.3 lineal miles, or about 61 percent, are perennial watercourses, and the remaining 8.0 lineal miles, or about 39 percent, are intermittent watercourses.

Floodplains

The floodplain of a river or stream include the wide, gently sloping areas contiguous to, and usually lying on both sides of, the river or stream channel and the channel itself. For planning and regulatory purposes, floodplains are normally defined as the areas subject to inundation by the 100-year recurrence interval flood event. This is the flood event that has a 1 percent chance of occurring in any given year. Floodplain areas are generally not well suited to urban development, not only because of the flood hazard, but also because of the presence of high water tables and, generally, of soils poorly suited to urban uses. The floodplain areas, however, generally contain important elements of the natural resource base such as high-value woodlands, wetlands, and wildlife habitat and, therefore, constitute prime locations for needed park and open space areas. Every effort should be made to discourage indiscriminate and incompatible urban development on floodplains, while encouraging compatible park and open space uses. Map 11 shows the general location and extent of areas lying within the 100-year recurrence interval flood hazard area, or floodplain, in the study area for those areas in which floodplain studies have been conducted.[2] About 2.3 square miles, or about 9 percent, of the study area are known to be located within the 100-year recurrence interval floodplain.

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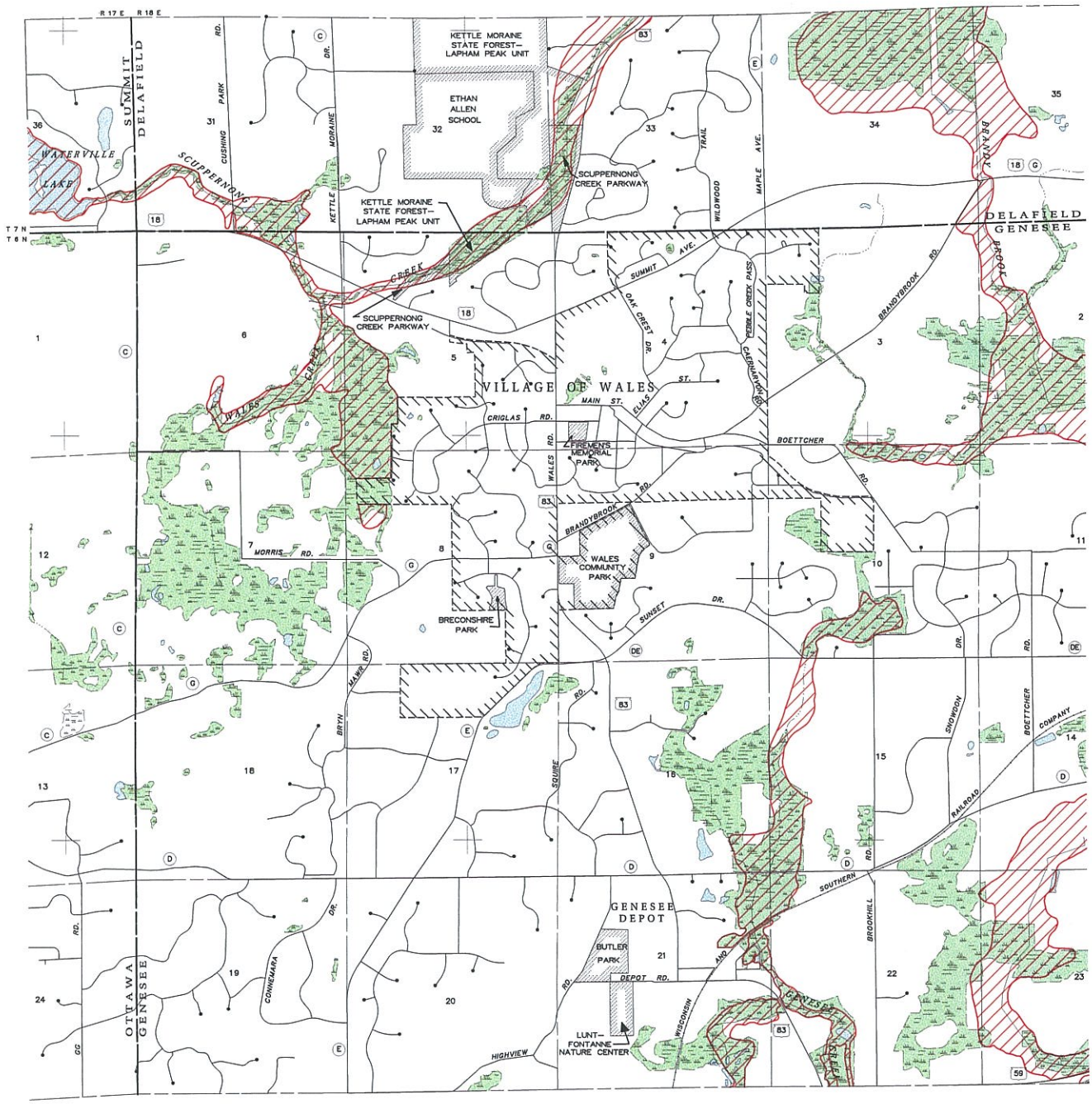
[2]*Since no floodplain studies have been conducted for the Village of Wales, no floodplains were delineated for the Village even though there appears to be floodplain in the Village based on floodplain information for surrounding areas.*

Map 11

WETLANDS, SURFACE WATER, AND KNOWN FLOODPLAINS IN THE VILLAGE OF WALES STUDY AREA: 2000



Source: Federal Emergency Management Agency and SEWRPC.

Groundwater Resources

An adequate supply of high quality groundwater is essential if used for domestic consumption. Like surface water, groundwater is susceptible to depletion and deterioration. The available quantity of groundwater can be reduced by the loss of recharge areas, excessive or overly concentrated pumping, and changes in ground cover. In addition, groundwater quality is subject to degradation from onsite sewage-disposal systems, surface water pollution, improper agricultural practices, and inadvertent spills or leakage of pollutants at or below the land surface. An understanding of the relationship between groundwater resources and proper master planning is, therefore, important to prevent future development from adversely affecting the availability and quality of groundwater.

Groundwater within the Wales area is available from two main water-bearing geologic units. The upper unit includes shallow limestone, referred to as the Niagara or dolomite aquifer, and overlying glacial deposits, referred to as the sand and gravel aquifer. These two interconnected aquifers are often called collectedly the "shallow aquifer." Separated from the shallow aquifer by a relatively impervious barrier, the Maquoketa shale formation, is a deeper sandstone aquifer commonly referred to as the "deep aquifer".

Water table levels within the shallow aquifer vary seasonally and with topography. Properly constructed wells can obtain adequate yields of groundwater from the shallow aquifer in most portions of the study area. The deep sandstone aquifer can yield large quantities of groundwater suitable for private and municipal water supply purposes. Adequate yields of groundwater from the overlying sand and gravel aquifer are available in the Wales area, and this aquifer is used exclusively as a water supply source.

WETLANDS

Wetlands are defined as areas that are inundated or saturated by surface or groundwater at a frequency and duration that is sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally occur in depressions and near the bottom of slopes, particularly along lakeshores and stream banks, and on land areas that are poorly drained. Wetlands may, however, under certain conditions, occur on slopes and even hilltops.

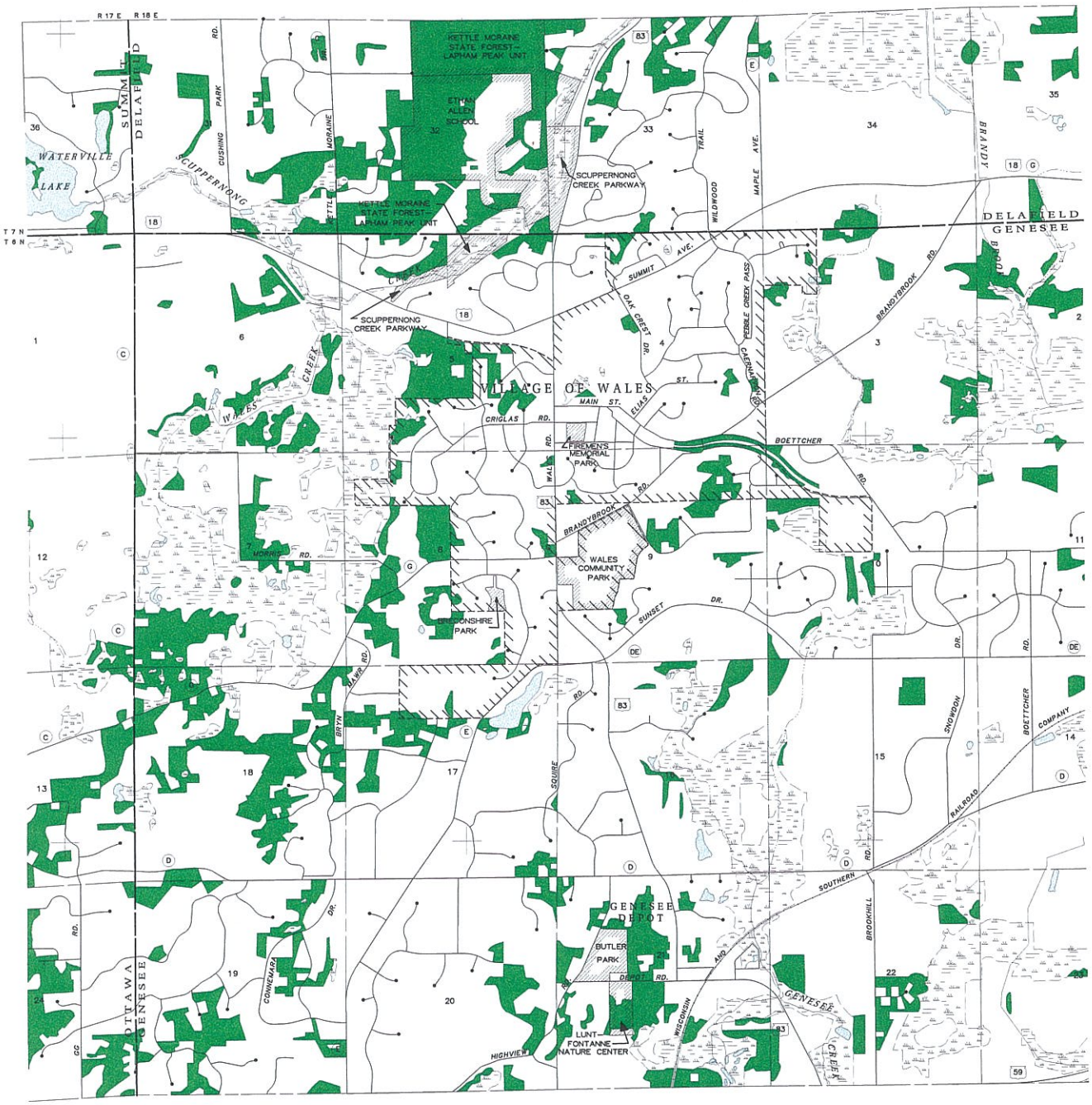
Wetlands are generally poorly suited for most agricultural or urban purposes. Wetlands, however, have important recreational and ecological values. Wetlands contribute to flood control and water quality enhancement, since such areas naturally serve to store excess runoff temporarily, thereby tending to reduce peak flows and to trap sediments, undesirable nutrients, and other water pollutants. Wetlands may also serve as groundwater recharge and discharge areas. Additional important natural functions of wetlands include the provision of breeding, nesting, resting, and feeding grounds and predator escape cover for many forms of wildlife. In view of these important functions, continued efforts should be made to protect these areas by discouraging wetland draining, filling, and urbanization. The latter can be particularly costly in both monetary and environmental terms. Wetlands in the study area, as shown on Map 11, covered about 2.9 square miles, or about 12 percent, of the study area in 2000. The largest concentrations of wetlands in the study area occur adjacent to intermittent streams and the waterways of Wales, Scuppernong, and Genesee Creeks and Brandy Brook.

WOODLANDS

Under good management, woodlands can serve a variety of beneficial functions. In addition to contributing to clean air and water and regulating surface water runoff, the woodlands contribute to the maintenance of a diversity of plant and animal life. Unfortunately, woodlands which required a century or more to develop can be destroyed through mismanagement in a comparatively short time. The destruction of woodlands, particularly on hillsides, can contribute to increased stormwater runoff and soil erosion, the siltation of lakes and streams, and the destruction of wildlife habitat. Woodlands should be maintained for their scenic, wildlife habitat, open space, educational, recreational, and air and water quality protection values. In 2000, wooded areas covered about 3.0 square miles, or about 12 percent, of the study area. As shown on Map 12, woodlands occur in scattered locations throughout the study area.

Map 12

WOODLANDS IN THE VILLAGE OF WALES STUDY AREA: 2000



WOODLANDS

SURFACE WATER

GRAPHIC SCALE

0 2500 5000 FEET

Source: SEWRPC.

WILDLIFE HABITATS

Wildlife in the Village of Wales study area include species such as rabbit, squirrel, woodchuck, raccoon, fox, whitetail deer, pheasant, and water fowl. The remaining wildlife habitat areas provide valuable recreation opportunities and constitute an invaluable aesthetic asset to the study area. The spectrum of wildlife species has, along with the habitat, undergone tremendous alterations since settlement by Europeans and the subsequent clearing of forests and draining of wetlands for agricultural purposes and urban development.

In 1985, the Regional Planning Commission and the Wisconsin Department of Natural Resources cooperatively inventoried wildlife habitat in Southeastern Wisconsin. The results of that inventory, as it pertains to the study area, are shown on Map 13. Three classes of wildlife habitat are identified: Class I areas contain a good diversity of wildlife, are large enough to provide all of the habitat requirements for each species, and are generally located near other wildlife habitat areas; Class II areas lack one of the three criteria necessary for a Class I designation; and Class III areas lack two of the three criteria for Class I designation.

Wildlife habitats in the study area generally occur in association with existing surface water, wetland, or woodland resources. Wildlife habitat areas covered about 9.5 square miles, or about 38 percent of the Village of Wales study area. Of this total habitat area, about 4.5 square miles, or about 18 percent of the study area, were rated as Class I; about 2.6 square miles, or about 10 percent of the study area, were rated as Class II; and about 2.4 square miles, or about 10 percent of the study area, were rated as Class III.

NATURAL AREAS, CRITICAL AQUATIC HABITATS, AND SIGNIFICANT GEOLOGICAL SITES

A special inventory was completed in 1994 to identify the most important remaining natural areas and critical species habitats, along with significant geological sites and archaeological sites, in Southeastern Wisconsin and to recommend means for their protection and management.[3] No known archaeological sites were identified in the Village of Wales study area. Natural areas, critical aquatic habitats, and significant geological sites in the study area are discussed below.

Natural Areas

Natural areas are tracts of land or water so little modified by human activities that they contain intact native plant and animal communities believed to be representative of the pre-European settlement landscape. Natural areas are classified into one of three categories: natural areas of statewide or greater significance (NA-1), natural areas of countywide or regional significance (NA-2); or natural areas of local significance (NA-3). Classification of an area into one of the three categories is based upon consideration of the diversity of plant and animal species and community types present; the structure and integrity of the native plant or animal community; the extent of disturbance from human activities such as logging, grazing, water level changes, and pollution; the commonness of the plant and animal communities present; unique natural features within the area; the size of the area; and the educational value.

Two natural areas, encompassing a total of about 259 acres, or about 2 percent of the study area, were identified in the inventory completed in 1994. These sites are shown on Map 14 and listed in Table 19. One of the sites is located mostly within Lapham Peak State Park with some areas under private ownership, and the second site is entirely under private ownership.

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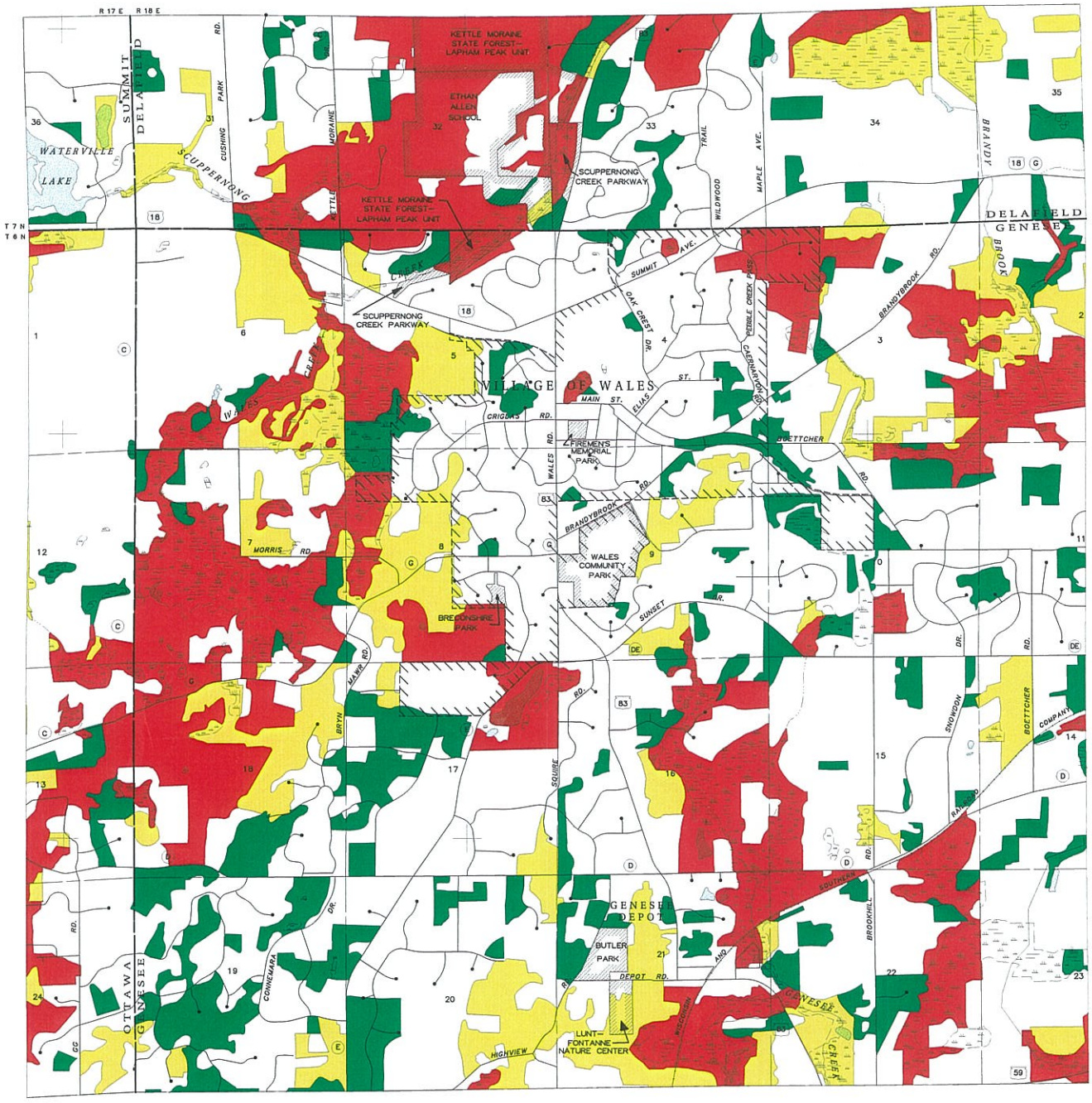
[3]*SEWRPC Planning Report No. 42,* A Regional Natural Areas and Critical Species Habitat Protection and Management Plan for Southeastern, Wisconsin, *September 1997.*

Map 13

WILDLIFE HABITAT AREAS IN THE VILLAGE OF WALES STUDY AREA: 1985



CLASS I

CLASS II

CLASS III

SURFACE WATER

NOTE: WILDLIFE HABITATS MAY BE LOCATED WITHIN SURFACE WATER FEATURES AND CONSIST OF DEEP MARSH AREAS HAVING SUBMERGENT, EMERGENT, AND FREE-FLOATING VEGETATION.

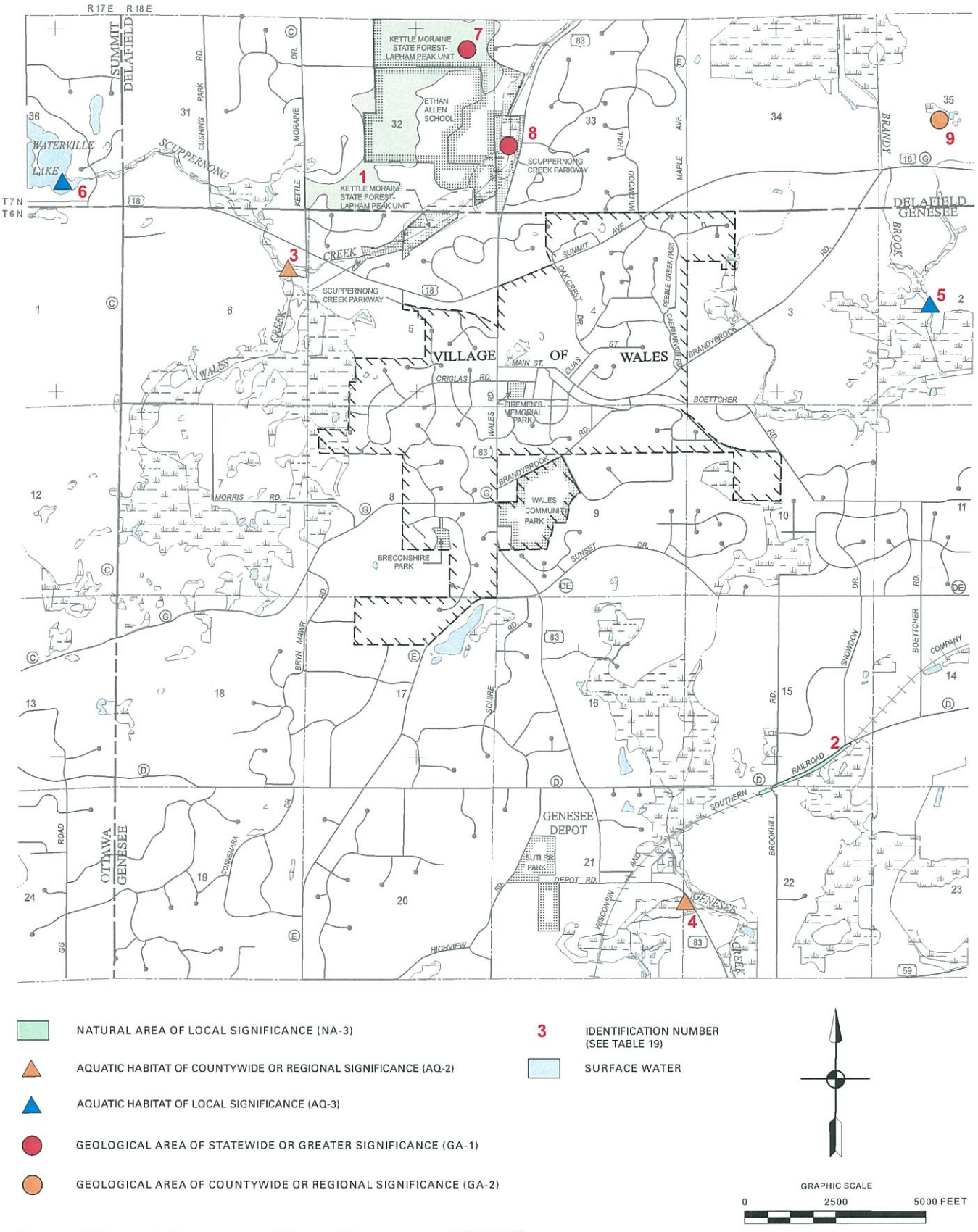
GRAPHIC SCALE

0 2500 5000 FEET

Source: Wisconsin Department of Natural Resources and SEWRPC.

Map 14

NATURAL AREAS, CRITICAL AQUATIC HABITATS, AND SIGNIFICANT GEOLOGICAL SITES IN THE VILLAGE OF WALES STUDY AREA: 1994



NATURAL AREA OF LOCAL SIGNIFICANCE (NA-3)

AQUATIC HABITAT OF COUNTYWIDE OR REGIONAL SIGNIFICANCE (AQ-2)

AQUATIC HABITAT OF LOCAL SIGNIFICANCE (AQ-3)

GEOLOGICAL AREA OF STATEWIDE OR GREATER SIGNIFICANCE (GA-1)

GEOLOGICAL AREA OF COUNTYWIDE OR REGIONAL SIGNIFICANCE (GA-2)

3 IDENTIFICATION NUMBER (SEE TABLE 19)

SURFACE WATER

GRAPHIC SCALE

0 2500 5000 FEET

Source: Wisconsin Department of Natural Resources and SEWRPC.

Table 19

NATURAL AREAS, CRITICAL AQUATIC HABITATS, AND SIGNIFICANT GEOLOGICAL SITES IN THE VILLAGE OF WALES STUDY AREA: 1994

Number on Map 14	Area Name	Classification Code[a]	Location	Ownership	Size	Description and Comments
1	Lapham Peak Woods	NA-3 (RSH)	T7N, R18E Sections 29, 32, 33 Town of Delafield	Wisconsin Department of Natural Resources, Wisconsin Department of Health and Social Services, and private	254 (451) acres[b]	Extensive but isolated xeric oak woods on rough interlobate moraine, dominated by white, red, and bur oaks, shagbark hickory, and black cherry. There is a past history of grazing and selective cutting. Threatened by encroaching subdivisions. Contains the late coral-root orchid (*Corallorhiza odontorhiza*), a State-designated special concern species
2	CTH D Railroad Prairie	NA-3	T5N, R18E Sections 15, 22 Town of Genesee	Private	5 acres	Patchy, moderate-quality dry-mesic prairie remnants along a one-half-mile-long stretch of railway right-of-way
3	Scuppernong Creek and Wales Creek	AQ-2 (RSH)	T6N, R17E Town of Ottawa T6N, R18E Town of Genesee T7N, R18E Town of Delafield T7N, R17E Town of Summit	--	2.5 (10.2) stream miles[b]	Good fish population and diversity, including critical fish species habitat; good water quality
4	Genesee Creek and Spring Creek	AQ-2 (RSH)	T5N, R18E Town of Mukwonago T6N,R18E Town of Genesee T6N, R19E Town of Waukesha	--	1.7 (9.7) stream miles[b]	Good overall water quality and fish population and diversity; Genesee Creek and Spring Creek are Class I trout streams
5	Brandy Brook and Pebble Creek	AQ-3	T6N, R18E Town of Genesee T6N, R19E Town of Waukesha T7N, R18E Town of Delafield	--	1.4 (6.8) stream miles[b]	Cold-water stream which bisects a Natural Area, Pebble Creek Wetlands
6	Waterville Pond	AQ-3 (RSH)	T7N, R17E Town of Summit	--	42 (68) acres[b]	A Scuppernong Creek impoundment with critical herptile species habitat
7	Kettle Moraine Interlobate Moraine	GA-1	Western portion of Region	Wisconsin Department of Natural Resources, Washington County, Waukesha County, and private	180 (15,714)[c] acres[b]	Interlobate moraine consisting of a complex system of irregular, knobby ridges, trending northeast-southwest across the western portion of the Region
8	Scuppernong Creek Spillway	GA-1	T6N, R18E Sections 5, 6 Town of Genesee T7N, R18E Sections 32, 33 Town of Delafield	Wisconsin Department of Natural Resources, Waukesha County, and private	302 (406) acres[b,d]	One of the finest examples of a glacial spillway remaining in the United States. Studied on a national and international basis. Associated with several other interlobate glacial features including kames, kettles, and a kame delta
9	Delafield Drumlin Fields	GA-2	T6N, R18E Sections 1, 2 Town of Genesee T7N, R18E Sections 34, 35, 36 Town of Delafield	Waukesha County and private	511 (3,763) acres[b]	A very well developed example of a drumlin field

[a] *NA-3 identifies Natural Area sites of local significance.*
AQ-2 identifies critical aquatic habitat sites of countywide or regional significance.
AQ-3 identifies critical aquatic habitat sites of local significance.
GA-1 identifies Geological Area sites of statewide or greater significance.
GA-2 identifies Geological Area sites of countywide or regional significance.
RSH, or Rare Species Habitat, identifies those sites which support rare, threatened, endangered, or "special concern" species officially designated by the Wisconsin Department of Natural Resources.

[b] *Site area, lake, or stream is located partially within the Village of Wales study area. The number without parentheses refers to the acreage or stream miles within the study area, and the number in parentheses is the total site area or stream miles, including those beyond the study area.*

[c] *This total reflects only the portion that lies within Waukesha County and within the established project boundary of the Southern Unit and the Lapham Peak Unit of the Kettle Moraine State Forest.*

[d] *Most of the site also lies within the general Kettle Moraine Interlobate Geological Area. A portion of the site, 144 acres, or 31 percent, is within the established project boundary of the Lapham Peak Unit of the Kettle Moraine State Forest (104 acres), or is located within the Ice Age Trail corridor (40 acres).*

Source: Wisconsin Department of Natural Resources and SEWRPC.

Critical Aquatic Habitats

Critical habitats are those areas, outside of natural areas, where the main value lies in their ability to support rare, threatened, or endangered species. Such areas constitute "critical" habitat that is important to ensure survival of a particular species or group of species of special concern.

Four critical aquatic habitats that support threatened or rare fish, herptile (amphibians and reptiles), or mussel species were identified in the study area. The four habitats include two habitats of countywide or regional significance (AQ-2), and two habitats of local significance (AQ-3). As shown on Map 14 and indicated in Table 19, there are 5.6 stream miles and 42 lake acres of such habitats in the study area.

Geological Sites

Significant geological sites are tracts of land that include such glacial features as eskers and kames, fossil beds, and rock outcrop and exposed bedrock sites of scientific and educational value. These sites, like natural areas and critical species habitats, are subject to inadvertent disturbance or destruction as urbanization within the Region continues, resulting in the loss of the opportunities which these sites afford such as educational and scientific pursuits. Geological sites identified as significant under the plan are classified as being of statewide or greater significance (GA-1), countywide or regional significance (GA-2), or local significance (GA-3).

Three geological sites were identified in the Village of Wales study area, which is a part of the large Kettle Moraine interlobate geological area. These sites encompassed an area of about 993 acres, or about 6 percent of the study area, and are identified on Map 14 and described in Table 19.

RESOURCE-RELATED ELEMENTS

Elements closely linked to the natural resources, such as scenic overlooks mentioned earlier, are considered in the planning process. Park and open space sites, as well as related trails, are enhanced by the presence of natural resources and, due to the commitment of land to such uses, contribute to the preservation of the resources.

Park, Recreation, and Open Space Sites

An inventory of park and open space sites and outdoor recreational facilities in the Village of Wales study area was conducted in 2000. As shown on Map 15 and listed in Table 20, there were 18 such sites encompassing a total of approximately 583 acres, or about 4 percent of the study area. Of this total, 11 sites encompassing about 494 acres were publicly owned, and seven sites encompassing about 89 acres were privately owned. The Village of Wales owned three of these sites and a nine-acre portion of the so-called Kettle Moraine High School site totaling approximately 98 acres. Village-owned park sites include Wales Firemen's Memorial Park, Breconshire Park, and Wales Community Park. The Village parks provide a variety of recreational facilities for local residents, from playgrounds to baseball diamonds, as noted in Table 20.

Scenic Drive and Recreation Trails

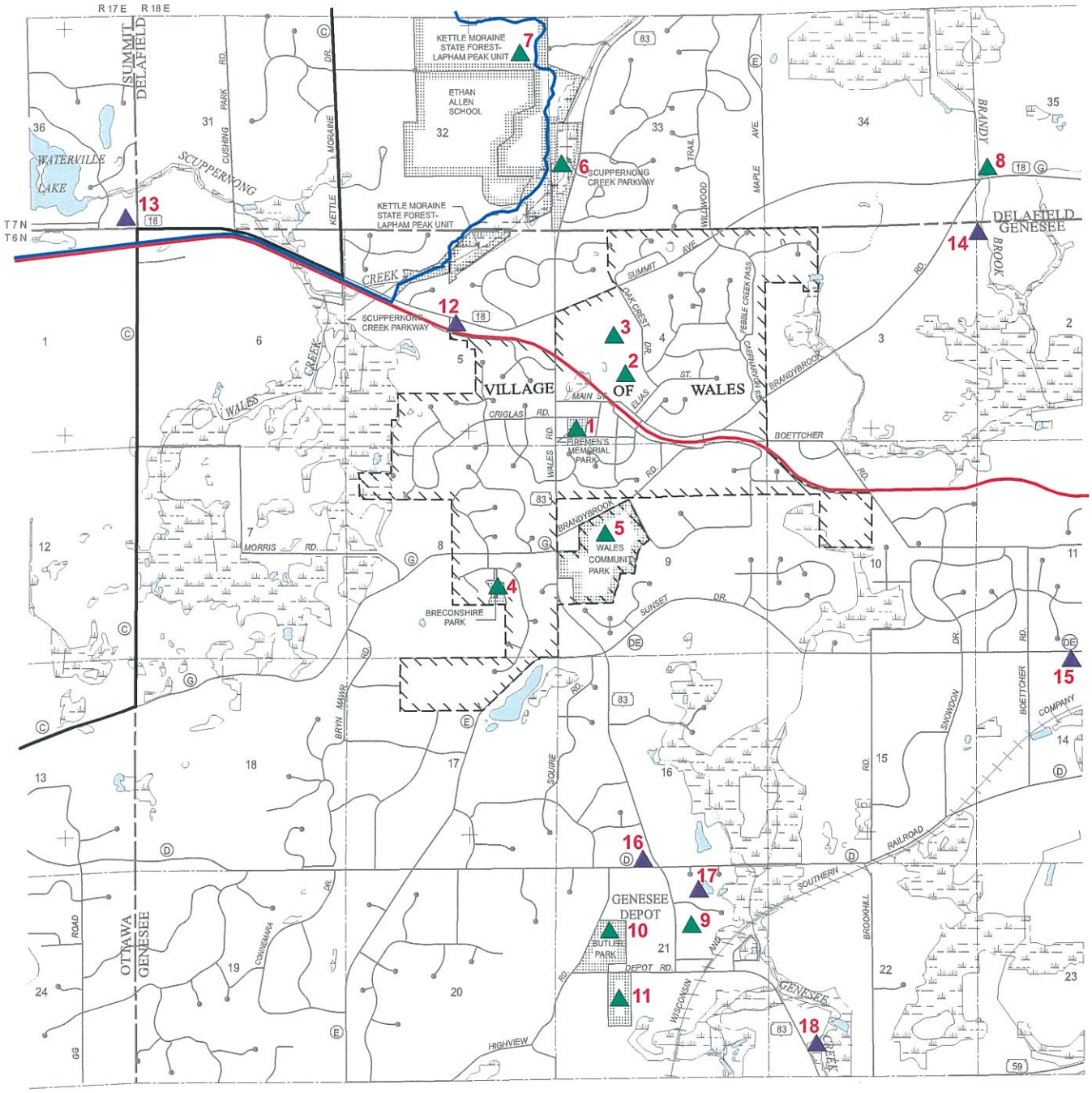
Opportunities for trail-oriented recreation activities such as hiking, bicycling, cross-country skiing, and nature study, and routes for pleasure driving are provided in the study area. In addition to the hiking, mountain-biking, and cross-country ski trails provided in Lapham Peak State Park, other major trail facilities traversing the study area are shown on Map 15. These facilities offer the promise of enhancing the quality of the recreational amenities in the Wales area.

The Kettle Moraine Scenic Drive is a marked route over public roadways within, and between, the Northern and Southern Units of the Kettle Moraine State Forest, intended for pleasure driving. As shown on Map 15, an approximately five-mile-long segment of this 75-mile route in the Region is located in the study area, west of the Village of Wales.

As shown on the map, approximately 5.3 miles of the existing 48-mile Glacial Drumlin State Trail is located within the study area. This multiple-use recreation trail is located on the abandoned Chicago & North Western Railway right-of-way and extends from the east side of the City of Waukesha to the Village of Cottage Grove,

Map 15

SCENIC DRIVE, MAJOR TRAILS, AND PARK AND OPEN SPACE SITES IN THE VILLAGE OF WALES STUDY AREA: 2000



PUBLICLY-OWNED SITE

PRIVATELY-OWNED SITE

10 REFERENCE NUMBER (SEE TABLE 20)

KETTLE MORAINE SCENIC DRIVE

GLACIAL DRUMLIN STATE TRAIL

ICE AGE NATIONAL SCENIC TRAIL

NOTE: TRAILS SHOWN PARALLEL TO EACH OTHER SHARE THE SAME TRAIL.

GRAPHIC SCALE

0 2500 5000 FEET

Source: SEWRPC.

Table 20

EXISTING PARK, RECREATION, AND OPEN SPACE SITES
IN THE VILLAGE OF WALES STUDY AREA: 2000

Number on Map 15	Site Name	Acreage	Outdoor Facilities/Comments
	Publicly-Owned		
1	• Wales Firemen's Memorial Park	5	Playground, softball diamonds
2	Wales Elementary School	20	Playground, playfield, softball diamond, basketball courts
3	Kettle Moraine High School	45[a]	Playfield, softball diamonds, baseball diamond, tennis courts, football field, running track, soccer field
4	• Breconshire Park	5	Playground, playfield, softball diamond, tennis court, soccer field
5	• Wales Community Park	79	Baseball diamonds
6	Scuppernong Creek Parkway	50[b]	Conservation area
7	Lapham Peak State Park	229[c]	Trails, picnicking, amphitheatre
8	Brandybrook Community Center	6	Playfield, soccer field
9	Magee Elementary School	12	Playground, playfield, softball diamond, baseball diamond, basketball courts, soccer field
10	Butler Park	26	Playground, playfield, softball diamonds, baseball diamond, tennis courts, soccer field, basketball courts, volleyball courts, picnicking
11	Lunt-Fontanne Nature Center	17	Trails
11 Sites	Subtotal	494	--
	Privately-Owned		
12	Saxes	1	Volleyball courts
13	Stonehedge Riding Stables	5	Riding stables
14	Grant Herman Stables	4	Riding stables
15	Montessori Methods School	2	Playground, playfield
16	St. Paul's Catholic Church and School	11	Playground, playfield, softball diamond, basketball courts
17	Victoria Pond	6	Trails, beach
18	Carroll College Conservancy	60	Conservation area
7 Sites	Subtotal	89	--
18 Sites	Total	583	--

•Owned by the Village of Wales.

[a]*The Village of Wales owns an approximately nine-acre portion of this site which consists of two soccer fields used mostly by the Kettle Moraine School District.*

[b]*Only a 50-acre portion of the total 59-acre existing parkway lies within the study area.*

[c]*Only a 229-acre portion of the total 1,024-acre park site lies within the study area.*

Source: SEWRPC.

located east of the City of Madison. The trail is paved from the City of Waukesha to the Village of Dousman, including the segment that lies within the Village of Wales study area.

A portion of the Ice Age National Scenic Trail is also located in the Village of Wales study area. This trail is a planned 1,000-mile National scenic trail designated by Congress in 1982 as a hiking route which generally follows glacial moraines and other glacial features. The planned trail stretches from Door County in northeastern Wisconsin through the Kettle Moraine area in Southeastern Wisconsin to Interstate Park in northwestern Wisconsin. As shown on Map 15, about 4.4 miles of the Ice Age Trail is developed and traverses through the study area, northwest of the Village of Wales.

ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS

As defined by the Regional Planning Commission, environmental corridors are elongated areas in the landscape that encompass concentrations of recreational, aesthetic, ecological, and cultural resources. Such areas generally include one or more of the natural resource base elements previously discussed in this chapter.

Map 16 shows the location and extent of environmental corridors and other environmentally significant areas, termed "isolated natural resource areas", within the study area as delineated by the Regional Planning Commission.[4] The essentially linear corridors represent a composite of the best remaining elements of the natural resource base in the study area and have immeasurable environmental and recreational value. Preservation of the primary environmental corridors, and careful consideration of preserving secondary environmental corridors and isolated natural resource areas, in an essentially open, natural state—including compatible park and open space uses and rural-density residential uses—will serve to maintain a high level of environmental quality in the area, protect the natural beauty of the area, and provide valuable recreation opportunities. Preservation will also avoid the creation of serious and costly environmental and developmental problems such as flood damage, poor drainage, wet basements, failing pavements and other structures, excessive infiltration of clear waters into sanitary sewers, and water pollution.

Primary Environmental Corridors

Primary environmental corridors are by definition at least 400 acres in size, two miles long, and 200 feet wide. These corridors include surface water areas, wetlands, woodlands, steep slopes, natural areas, and wildlife habitats. In 2000, about 5.7 square miles, or about 23 percent of the study area, were encompassed within the primary environmental corridors shown on Map 16. These corridors are mostly located in the undeveloped areas of the Kettle Moraine interlobate geological area and along perennial and intermittent streams, including Wales Creek, Scuppernong Creek, Genesee Creek, and Brandy Brook, and the large wetland areas associated with these streams within the study area. The protection of primary environmental corridors from intrusion by incompatible urban uses, and thereby from degradation and destruction, should be one of the principal objectives of a local development plan.

Secondary Environmental Corridors

While secondary corridors may have many of the same qualities as primary corridors, they are smaller in size. Such corridors are by definition at least 100 acres in size and one mile long, except where they serve to connect primary environmental corridor, and often contain remnant resources from former primary environmental corridors which have been developed for intensive agricultural or urban land uses. As shown on Map 16, about 0.1 square mile, or less than one percent of the study area, were encompassed within secondary environmental corridors in 2000. Secondary environmental corridors in the Village of Wales study area are mostly located along streams, including segments of Scuppernong Creek and Brandy Brook, and encompasses wetlands associated within these streams. Secondary environmental corridors facilitate surface water drainage, maintain "pockets" of natural resource features, and provide for the movement of wildlife, as well as for the movement and dispersal of seeds for a variety of plant species. Such corridors should be preserved in essentially open natural uses as urban development proceeds within the study area, particularly when the opportunity is presented to incorporate them into urban stormwater detention areas, associated drainageways, and parks and open space sites.

Isolated Natural Resource Areas

In addition to the primary and secondary environmental corridors, other small concentrations of natural resource base elements exist within the study area. These elements are isolated from the corridors by urban development or agricultural uses and, although separated from the environmental corridor network, may have important residual

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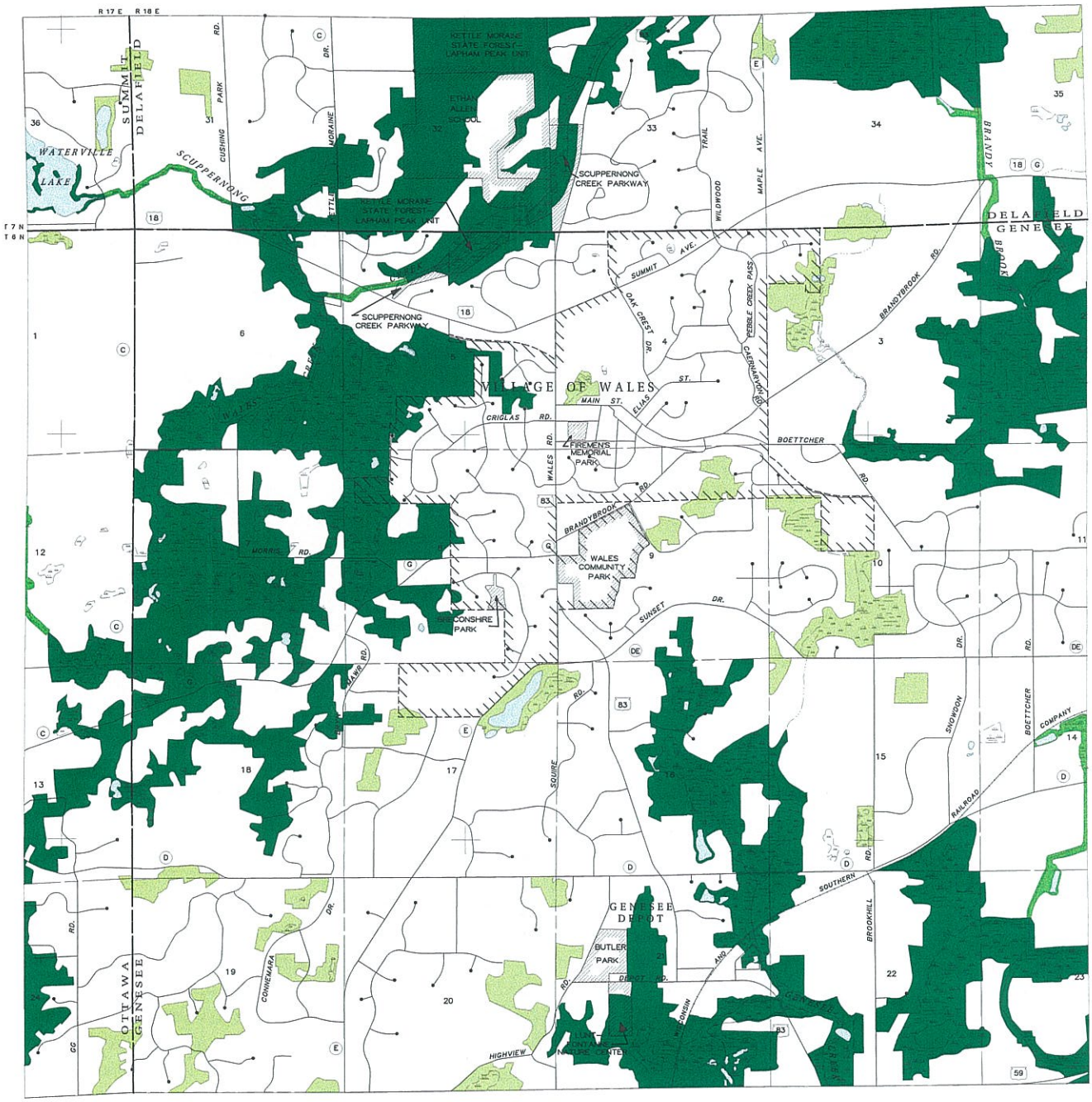
[4] *A detailed description of the process for delineating environmental corridors in Southeastern Wisconsin is presented in SEWRPC Technical Record, Vol. 4, No. 2,* Refining the Delineation of Environmental Corridors in Southeastern Wisconsin, *March 1981, pp. 1-21.*

Map 16

ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS IN THE VILLAGE OF WALES STUDY AREA: 2000



Source: SEWRPC.

natural values. Isolated natural features may provide the only available wildlife habitat in an area, provide good locations for local parks and nature study areas, and lend aesthetic character and natural diversity to an area. Important isolated natural resource areas within the Village of Wales study area include a geographically well-distributed variety of isolated wetlands, woodlands, and wildlife habitat. These areas should be protected and preserved in a natural state whenever possible. Isolated natural resource areas five acres or greater in size are shown on Map 16. In 2000, these areas encompassed about 0.9 square mile, or about 4 percent of the study area.

SUMMARY

This chapter has presented the natural resources of the Village of Wales study area, emphasizing those resources that require careful consideration in any planning effort. The information was thus incorporated into the design of the master plan and provides a good reference to the Village of Wales when judging the merits of land development proposals. A summary of pertinent inventory findings follows.

- Soil limitations for various urban and nonurban uses are an important consideration in any sound planning effort. Maps 4 and 5 depict the general suitability or unsuitability for development using onsite sewage-disposal systems, based on State Administrative Code requirements in effect prior to July 2000. Onsite investigations are essential to determine whether a specific tract of land is suitable for development to be served by an onsite sewage-disposal system.

- Approximately 14 square miles, or about 57 percent of the study area, are covered by Class I, II, and III soils which are well suited for agricultural use. In general, Class I and II soils are considered National Prime Farmland, and Class III soils are considered Farmlands of Statewide Importance.

- The study area is located within the Rock River and Fox River watersheds, which are part of the larger Mississippi River drainage system. The surface water resources in the study area include Waterville Lake, Brandy Brook, Wales Creek, Genesee Creek, and Scuppernong Creek. About 2.3 square miles, or 9 percent, of the study area are known to lie within the 100-year recurrence interval floodplain. The extent of floodplain within the Village of Wales is not known since no floodplain studies have been conducted for the Village.

- The study area exhibits some significant natural resource base features. In 2000, the study area included wetlands and woodlands in which each encompassed about 2.9 square miles, or 12 percent, of the study area, and wildlife habitat areas encompassed about 9.5 square miles, or 38 percent, of the study area. The study area includes two sites identified as natural areas under criteria established by the Wisconsin Natural Areas Preservation Council, four sites identified as critical aquatic habitats, and three sites identified as significant geological sites.

- Other natural resource related elements that exist in the study area include 40 scenic overlooks, five miles of the 75-mile Kettle Moraine Scenic Drive, four miles of the planned 1,000-mile Ice Age National Scenic Trail, five miles of the 48-mile Glacial Drumlin State Trail, and 18 park and open space sites. The Village of Wales owns four public outdoor recreation sites which provide residents with a variety of recreational facilities from play apparatuses to baseball diamonds.

- The best remaining elements of the natural resource features of the Village of Wales study area, as in other parts of the Southeastern Wisconsin Region, occur in linear concentrations in the landscape and are referred to as environmental corridors. Primary environmental corridors in the study area are primarily associated with surface waters and the Kettle Moraine interlobate glacial area. These corridors encompassed about 5.7 square miles in 2000, representing about 23 percent of the study area. Secondary environmental corridors encompassed about 0.1 square mile in 2000, representing less than 1 percent of the study area. Other small concentrations of the natural resource base, known as isolated natural resource areas, encompassed about 0.9 square mile in 2000, representing about 4 percent of the study area.

Chapter IV

EXISTING LAND USES, COMMUNITY FACILITIES, AND PUBLIC UTILITIES

Whereas the previous chapter presented a description of the natural resources of the Village of Wales study area, this chapter describes pertinent features of the built environment. Specifically, this chapter presents information on existing land uses, historic places, community facilities, and public utilities. Detailed information regarding existing land uses and other related aspects of the built environment is essential to the preparation of a sound master plan.

EXISTING LAND USES

The Regional Planning Commission inventories existing land uses in the Southeastern Wisconsin Region approximately every five years. The first land use inventory was conducted in 1963, and the most recent such inventory for the Village of Wales was conducted in April 2000. The data gathered in this latest inventory were mapped and analyzed in order to provide a basis for considering future land use patterns in the Wales area.

The existing 2000 land uses in the approximately 25-square mile study area are shown on Map 17, and quantitatively summarized in Table 21. Existing land uses within the 2000 incorporated area of the Village of Wales are shown on Map 18, and the amount of land devoted to each type of land use in the Village is set forth in Table 22. In 2000, the Village of Wales occupied about 2.4 square miles, or about 10 percent of the study area.

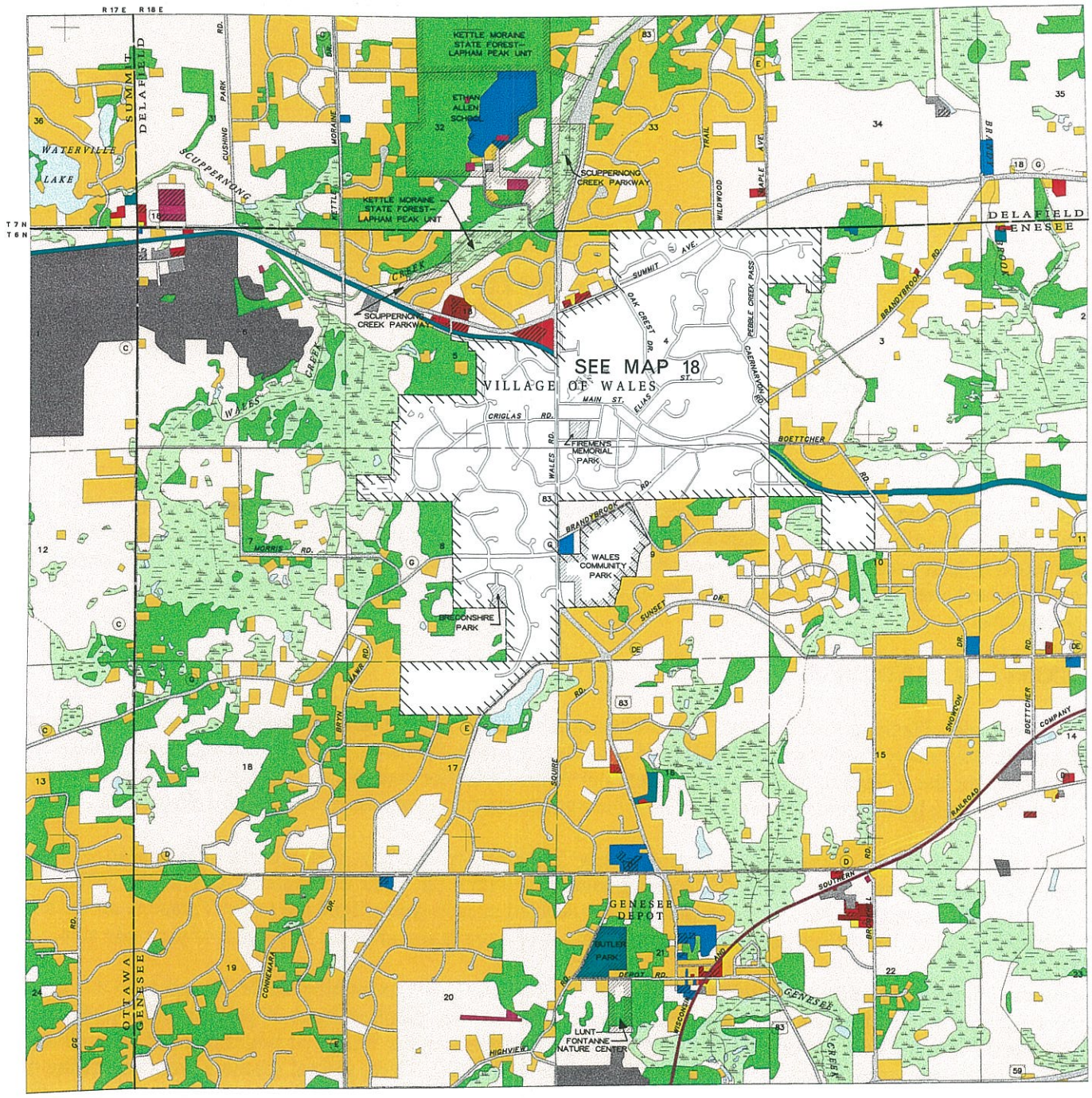
Several important characteristics of the study area can be noted from examining Table 21 and Map 17. First, single-family residential land uses are the predominate land uses, representing about 28 percent of the study area. Residential land uses also represented the largest group of land uses in the Village of Wales. Second, agricultural-related uses represented about 27 percent of the study area in 2000. Third, natural resource areas consisting of water, wetlands, and woodlands represented about 24 percent of the study area. This information supports the perception of the Wales study area as consisting of a centrally located urban center—the Village of Wales—nestled in the "Welsh Hills" of Waukesha County surrounded by still "open" lands, with some outlying residential development, that provide an attractive setting for the Village. The study area is generally considered a part of the south Kettle Moraine, an interlobate glacial deposit or moraine, in which the popular Kettle Moraine State Forest-Southern Unit is only approximately three miles southwest of the Village of Wales.

Urban Land Uses

In 2000, urban land uses occupied 6,327 acres, or about 40 percent of the study area, and 1,111 acres, or about 72 percent of the Village of Wales. A discussion of the different types of urban uses within the study area and the Village follows.

Map 17

EXISTING LAND USES IN THE VILLAGE OF WALES STUDY AREA: 2000



- SINGLE-FAMILY RESIDENTIAL
- TWO-FAMILY RESIDENTIAL
- MULTI-FAMILY RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- EXTRACTIVE
- STREETS AND HIGHWAYS
- OTHER TRANSPORTATION AND UTILITIES
- PARKING
- GOVERNMENTAL AND INSTITUTIONAL
- RECREATIONAL
- WETLANDS
- WOODLANDS
- AGRICULTURAL AND OTHER OPEN LANDS
- SURFACE WATER

GRAPHIC SCALE

0 2500 5000 FEET

Source: SEWRPC.

Table 21

SUMMARY OF EXISTING LAND USES IN THE VILLAGE OF WALES STUDY AREA: 2000

Land Use Category	Number of Acres	Percent of Subtotal (Urban or Nonurban)	Percent of Total
Urban[a]			
Residential[b]			
Single-Family	4,454	70.4	27.8
Two-Family	34	0.5	0.2
Multi-Family	26	0.4	0.2
Subtotal	4,514	71.3	28.2
Commercial	61	1.0	0.4
Industrial	38	0.6	0.2
Quarries	422	6.7	2.6
Transportation and Utilities			
Arterial Streets and Highways	334	5.3	2.1
Collector and Local Streets	615	9.7	3.8
Railways	19	0.3	0.1
Communications, Utilities, and Others	23	0.4	0.2
Subtotal	991	15.7	6.2
Governmental and Institutional	180	2.8	1.1
Recreational[c]			
Public	111	1.7	0.7
Private	10	0.2	0.1
Subtotal	121	1.9	0.8
Urban Land Use Subtotal	6,327	100.0	39.5
Nonurban			
Natural Resource Areas			
Water	98	1.0	0.6
Wetlands	1,868	19.2	11.7
Woodlands	1,893	19.5	11.8
Subtotal	3,859	39.7	24.1
Agricultural	4,256	43.9	26.5
Open Lands[d]	1,592	16.4	9.9
Nonurban Land Use Subtotal	9,707	100.0	60.5
Total	16,034	--	100.0

[a] *Includes related off-street parking areas for each urban land use category.*

[b] *Includes farm residences; other farm buildings are included in the agricultural land use category.*

[c] *Includes only those areas used for intensive outdoor recreational activities.*

[d] *Includes unused lands and lands under development as of April 2000.*

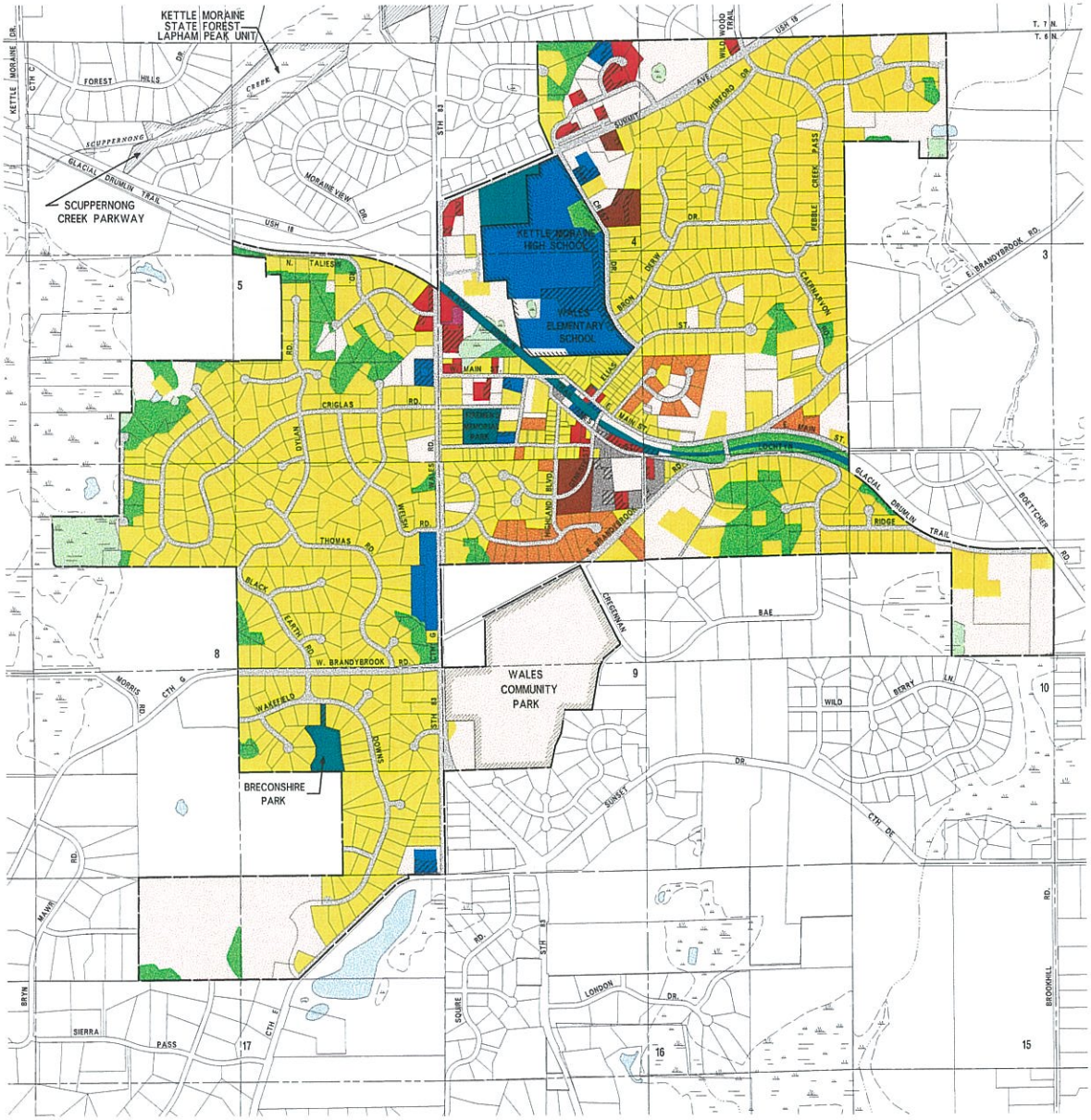
Source: SEWRPC.

Residential

The residential land use portion of a master plan normally holds the most interest of community residents. In fact, the majority of respondents in a community survey indicated that they live in the Village because they found a suitable residence in a safe/secure community. "Tranquil residential areas" was selected as the most positive

Map 18

EXISTING LAND USES IN THE VILLAGE OF WALES: 2000



- SINGLE-FAMILY RESIDENTIAL
- TWO-FAMILY RESIDENTIAL
- MULTI-FAMILY RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- STREETS AND HIGHWAYS
- OTHER TRANSPORTATION AND UTILITIES
- PARKING
- GOVERNMENTAL AND INSTITUTIONAL
- RECREATIONAL
- WETLANDS
- WOODLANDS
- AGRICULTURAL AND OTHER OPEN LANDS
- SURFACE WATER

GRAPHIC SCALE

0 1500 3000 FEET

Source: SEWRPC.

Table 22

SUMMARY OF EXISTING LAND USES IN THE VILLAGE OF WALES: 2000

Land Use Category	Number of Acres	Percent of Subtotal (Urban or Nonurban)	Percent of Total
Urban[a]			
Residential[b]			
Single-Family	750	67.5	48.7
Two-Family	32	2.9	2.1
Multi-Family	13	1.2	0.8
Subtotal	795	71.6	51.6
Commercial	21	1.9	1.4
Industrial	9	0.8	0.6
Transportation and Utilities			
Arterial Streets and Highways	43	3.9	2.8
Collector and Local Streets	134	12.0	8.7
Communications, Utilities, and Others	1	0.1	0.1
Subtotal	178	16.0	11.6
Governmental and Institutional	78	7.0	5.1
Recreational[c]			
Public	30	2.7	1.9
Private	0	0.0	0.0
Subtotal	30	2.7	1.9
Urban Land Use Subtotal	1,111	100.0	72.2
Nonurban			
Natural Resource Areas			
Water	1	0.2	0.1
Wetlands	23	5.4	1.5
Woodlands	84	19.6	5.4
Subtotal	108	25.2	7.0
Agricultural	92	21.5	6.0
Open Lands[d]	228	53.3	14.8
Nonurban Land Use Subtotal	428	100.0	27.8
Total	1,539	- -	100.0

[a]*Includes related off-street parking areas for each urban land use category.*

[b]*Includes farm residences; other farm buildings are included in the agricultural land use category.*

[c]*Includes only those areas used for intensive outdoor recreational activities.*

[d]*Includes unused lands and lands under development as of April 2000.*

Source: SEWRPC.

influence on the quality of life in the Village. Since the residential land use element of the plan seeks primarily to continue to provide a safe, attractive, and comfortable setting for residential development, it is very important that this element be given careful consideration. The nature and extent of residential development is a major determinant of the type and location of utilities and community facilities needed to serve local residents.

In 2000, residential land use accounted for 4,514 acres, or about 71 percent of the urban land uses and about 28 percent of the total land uses in the Village of Wales study area. Within the Village of Wales in 2000, residential land use accounted for 795 acres, or about 72 percent of the urban land uses and about 52 percent of the total land uses in the Village. As shown on Map 18, most of the Village was occupied by single-family residential uses located throughout the community.

Commercial

In 2000, commercial retail sales, services, office buildings, and associated parking uses accounted for 61 acres, or about 1 percent of the urban land uses and less than 1 percent of the total land uses in the Village of Wales study area. Most commercial uses are located in the Genesee Depot area and the Village of Wales. Within the Village, commercial land uses accounted for 21 acres, or about 2 percent of the urban land uses and about 1 percent of the total land uses in the Village. Commercial land uses in the Village are located predominantly along STH 83 and USH 18, mostly near the intersection of these two highways.

Industrial

In 2000, industrial land uses accounted for 38 acres, or about 1 percent of the urban land uses within the study area and less than 1 percent of the total study area. Within the Village of Wales in 2000, industrial land uses accounted for nine acres, or about 1 percent each of the urban land uses and total land uses in the Village. The industrial uses in the Village are located in the center of the community, near and within the southeastern portion of the Historic Village Center defined on Map 19.

Extractive

In 2000, extractive uses occupied 422 acres, or about 7 percent of the urban land uses in the study area and about 3 percent of the total study area. The quarrying operations were located in the western and southern portions of the study area in, respectively, the Towns of Ottawa and Genesee. No extractive sites existed in the Village of Wales in 2000.

Transportation and Utilities

In 2000, transportation and utility land uses, which include a railway line and street and highway rights-of-way, accounted for 991 acres of land in the study area, or about 16 percent of the urban land uses in the study area and about 6 percent of the total study area. Within the 2000 incorporated area of the Village, these land uses accounted for 178 acres, or about 16 percent of the urban land uses and about 12 percent of the total area within the Village. Major transportation and utility facilities include STH 83, USH 18, the Wisconsin Electric Power Company property, and the Wisconsin & Southern Railroad Company line.

Governmental and Institutional

In 2000, governmental and institutional land uses accounted for 180 acres of land in the Village of Wales study area, representing about 3 percent of the urban land uses of the study area and about 1 percent of the total study area. Within the Village of Wales proper in 2000, these land uses accounted for 78 acres, or 7 percent of the urban land uses and about 5 percent of the total Village area. Major governmental and institutional land uses in the study area include churches, Village and Town Halls, fire stations, and public and private schools.

Recreational

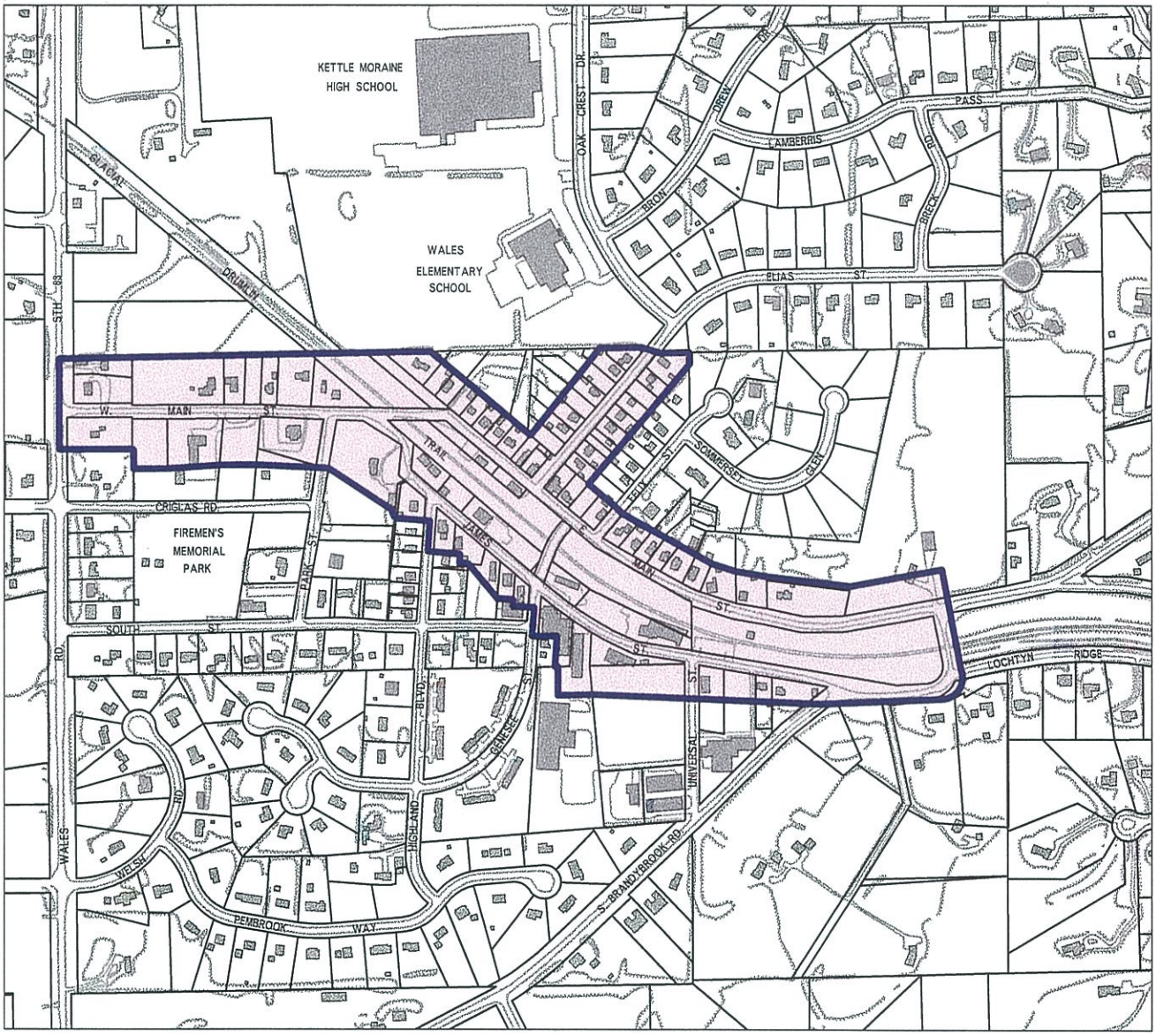
In 2000, recreational land uses represented 121 acres of land, or about 2 percent of the urban portion of the Village of Wales study area and about 1 percent of the total study area. Within the 2000 corporate limits of the Village, these land uses accounted for 30 acres, or about 3 percent of the urban land uses and about 2 percent of the total land uses within the Village proper. As shown on Maps 17 and 18, this category includes only those areas that have been developed for recreational uses, with facilities such as playgrounds, tennis courts, baseball diamonds, soccer fields, and other playfields. A complete identification of all park and open space sites in the study area is shown on Map 15 and listed in Table 20 in Chapter III.

Nonurban Land Uses

Nonurban land uses consist of wetlands, woodlands, surface water, agricultural lands, and other open lands. Nonurban lands and waters totaled 9,707 acres, or about 60 percent of the Village of Wales study area in 2000,

Map 19

HISTORIC VILLAGE CENTER



Source: Village of Wales and SEWRPC.

while such uses occupied 428 acres, or about 28 percent of the area within the Village. The various types of nonurban land uses that occupy the Wales area are described below.

Natural Resource Areas
Natural resource areas include wetlands, woodlands, and surface waters. Such areas encompassed 3,859 acres, or about 24 percent of the study area in 2000. Of this total, wetlands represented 1,868 acres, or about 12 percent of the study area; woodlands occupied 1,893 acres, or about 12 percent of the study area; and surface water represented 98 acres, or about 1 percent of the study area. In the Village of Wales in 2000, natural resource areas encompassed 108 acres, or 7 percent of the Village. Wetlands encompassed 23 acres, or about 2 percent of the Village; woodlands encompassed 84 acres, or about 5 percent of the Village; and surface water encompassed one acre, or less than 1 percent of the Village. More detailed information regarding the location and importance of natural resource areas is provided in Chapter III.

Agricultural
The agricultural land use category shown on Map 17 includes all croplands, pasture lands, orchards, nurseries, and nonresidential farm buildings. Farm residences, together with an approximately 20,000-square-foot dwelling site area, were classified as single-family residential land uses. In 2000, agricultural lands occupied 4,256 acres, or about 27 percent of the study area. Within the 2000 Village corporate limits, agricultural land uses accounted for 92 acres, or 6 percent of the Village.

Open Lands
Open lands include lands in rural areas that are not farmed, lands in concentrated urban areas that have not been developed, or lands that were under development as of April 2000. Examples of open lands in urban areas include undeveloped portions of park sites, excess transportation rights-of-way, subdivision outlots, and undeveloped portions of commercial and industrial lots. Open lands accounted for 1,592 acres, or about 10 percent of the study area in 2000. Within the Village in 2000, these open lands encompassed 228 acres, or about 15 percent of the Village area.

HISTORIC RESOURCES

The preservation of historic places is intended to help ensure that the historic heritage of a community is protected and enhanced over time. Historic preservation planning recognizes that historic places are valuable resources whose damage or loss would be detrimental to the community. The key elements of an effective historic preservation planning effort include: 1) a thorough survey of historic resources, 2) community support for historic preservation, and 3) integration of historic preservation planning into the comprehensive community planning process. The principal means of implementing historic preservation plans include a local landmark or historic preservation commission created by municipal ordinance; a zoning ordinance with specific districts and district regulations for protecting historic sites and structures; and a demolition control ordinance. These principal means may be supplemented by the use of easements and taxation policies.

The importance of historic preservation planning is based on the assumption that the historic resources of a community are valuable and should be carefully considered in planning for community development and redevelopment. Historic preservation can help to maintain the unique identity of a community, especially within a community's historic "downtown" area, such as the Wales Historic Village Center as delineated on Map 19. Other benefits of historic preservation include: promoting tourism, increased real estate values and municipal tax revenues, arresting decay in declining areas, creating community pride, and conserving cultural resources. Despite these potential benefits, other forces such as economics, public attitudes, and existing laws can sometimes work against historic preservation. Through proper planning, however, the impediments to historic preservation can be reduced.

To be most effective, historic preservation planning for communities such as the Village of Wales should be integrated into the overall community planning process. As an integral part of the total planning process, historic preservation can be considered in addition to all the other needs and goals of the community, thereby affording

such preservation equal consideration with other planning issues. In this way, historic preservation can become an issue of continuing concern and can be built into the ongoing development and redevelopment decision-making process of the community.

Existing Historic Preservation Inventory

Realizing the importance of historic preservation, Waukesha County, with assistance from the University of Wisconsin–Milwaukee School of Architecture and Urban Planning, completed a historic resource inventory for the City of Oconomowoc and the southern unincorporated areas of the County, including most of the Village of Wales study area which lie within the Town of Genesee but excluding those portions in the Town of Delafield. The State Historical Society of Wisconsin and the Village of Wales also contain such inventory information for the entire study area and the incorporated community, respectively. These inventories, however, would require additional research to further examine their potential eligibility for listing on the National and State Registers of Historic Places. Such a comprehensive inventory should focus on the identification, evaluation, documentation, and registration of the historically significant architectural and cultural resources. Specifically, this more detailed inventory should provide a listing of architectural and historic sites, including any historic districts encompassing many significant historic buildings. This information may be further used to increase public and private sector awareness of the Village's historic and architectural heritage.

The more detailed comprehensive inventory is ultimately intended to provide a basis for nominating the most significant sites and buildings for inclusion on the National and State Registers of Historic Places, a mark of special status. If registered, such status would help protect the places from encroachment by State and Federal facilities development projects and may qualify for State and Federal tax incentives and Federal matching grants, when available, for research, restoration, acquisition, or stabilization. Any city or village containing property listed on the National or State Registers of Historic Places must enact a historic preservation ordinance to protect and preserve such resources. The survey document should present a descriptive inventory of the historic places and buildings in a given area and identify some of them as potentially eligible for listing in the National and State Registers, pending further detailed examination. The reconnaissance survey cards and the intensive survey forms used to conduct the inventory would elicit pertinent information about the sites and buildings, including those within a potential historic district, such as location, ownership, building site, construction and geographic data, historic significance, and major historic and bibliographic references. These data can be drawn upon when establishing historic preservation-related zoning districts, when making decisions regarding property identified as having historic value, or when making improvements in a historic district.

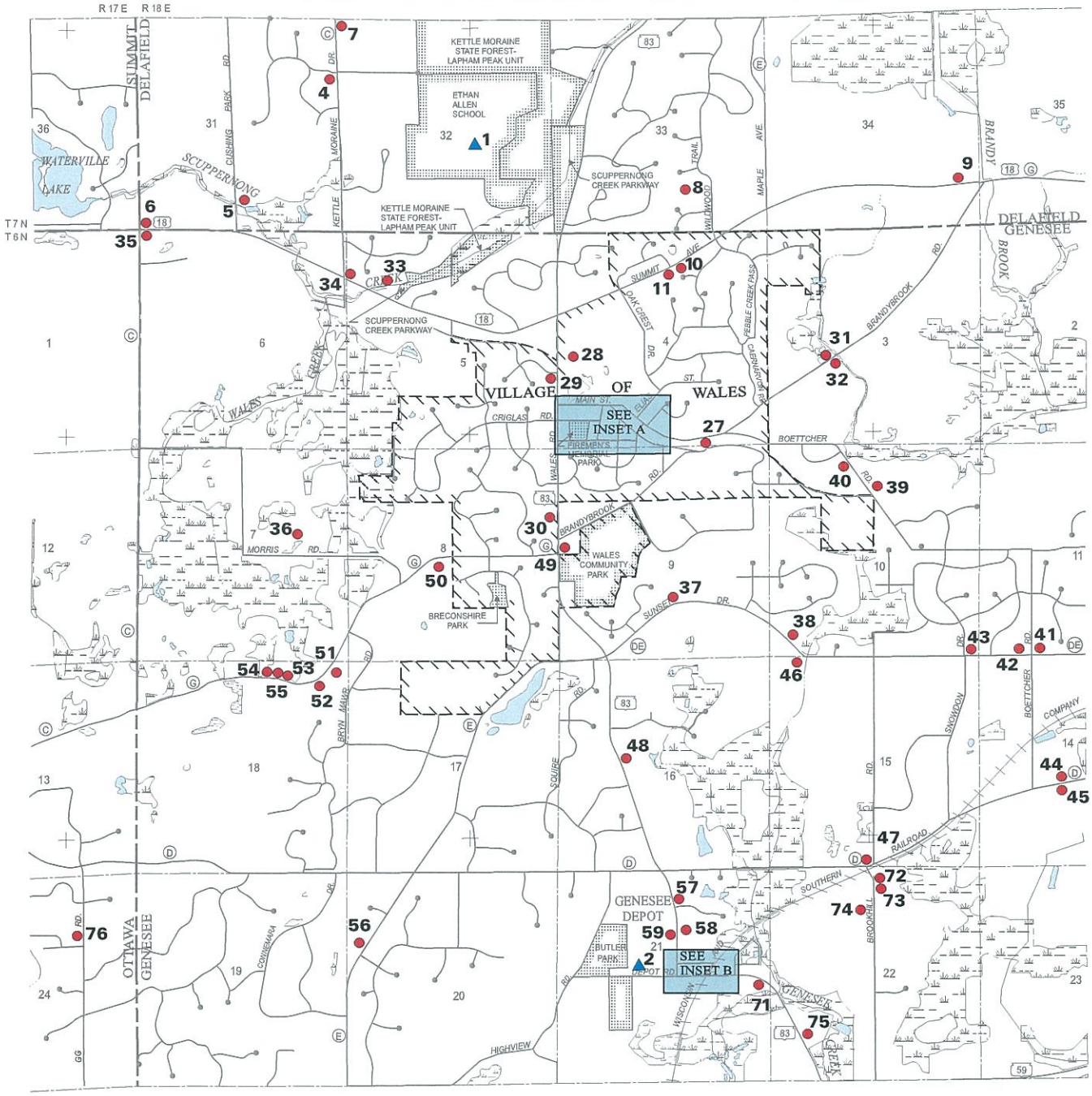
As indicated in Map 20 and Table 23, approximately 76 buildings and sites within the Village of Wales study area have been identified as historic in one survey or more. To date, two buildings, the Ten Chimneys and the Genesee Depot Amusement Hall (presently the Wales-Genesee Lions Club), and the Statesan Historic District (currently the Ethan Allen School site), consisting of 16 distinct historic features, are officially listed on both the National Register of Historic Places and the Wisconsin State Register of Historic Places. Seventy-three other places were identified as potentially significant historic features pending further research. The large number of identified potential historical places—21 sites—in the Village of Wales and the high concentration of such historic places in the Historic Village Center indicates that the area is rich in historic resources that should be protected for the present as well as future generations.

COMMUNITY FACILITIES AND SERVICES

To serve the needs of the general public, certain community facilities should be provided by the public sector. Such public facilities would help meet the ultimate goal of protecting and promoting the general public health, safety, and welfare of existing and future generations of Wales area residents. Data on certain public facilities is essential to determine if any additional land is needed to accommodate expansion or new development of community facilities.

Map 20

KNOWN AND POTENTIALLY SIGNIFICANT HISTORIC PLACES AND HISTORIC DISTRICTS IN THE VILLAGE OF WALES STUDY AREA: 2000



▲ NATIONAL AND STATE REGISTERED HISTORIC PLACE OR DISTRICT

● POTENTIAL HISTORIC PLACE

10 IDENTIFICATION NUMBER (SEE TABLE 23)

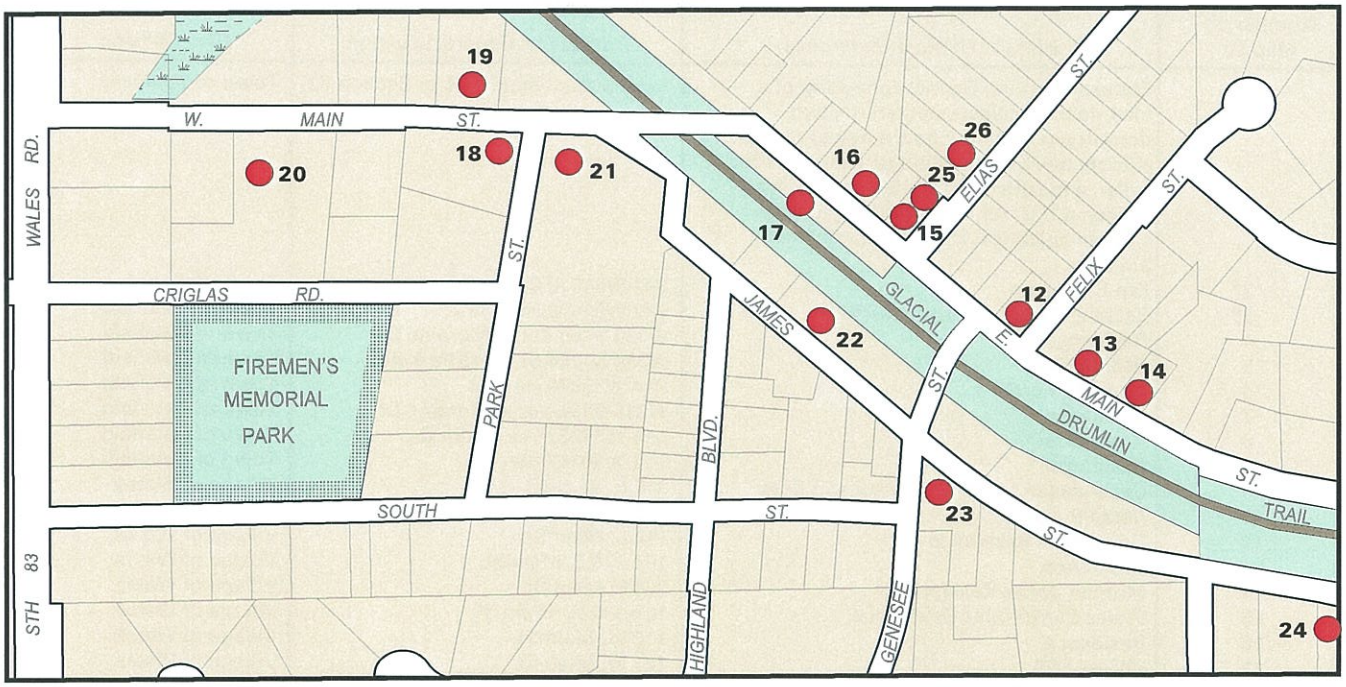
GRAPHIC SCALE

0 2500 5000 FEET

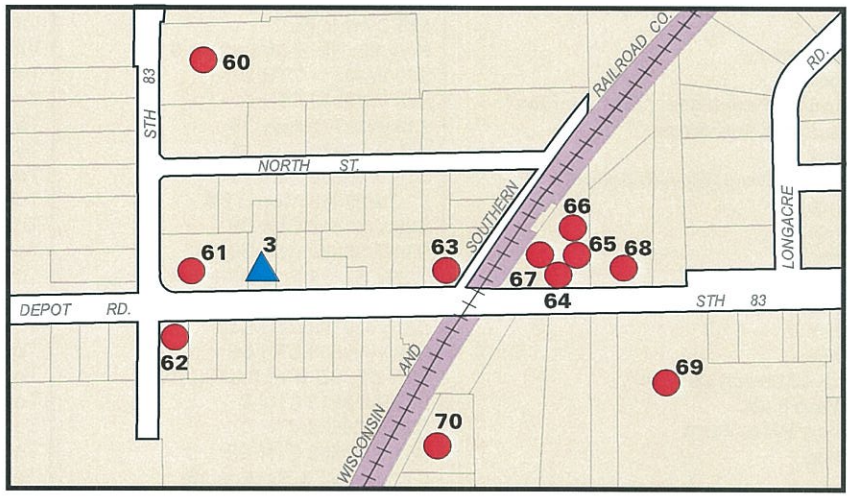
Source: SEWRPC.

INSETS TO Map 20

INSET A
WALES HISTORIC VILLAGE CENTER AREA



INSET B
GENESEE DEPOT AREA



GRAPHIC SCALE

0 500 1000 FEET

Table 23

KNOWN AND POTENTIAL SIGNIFICANT HISTORIC PLACES AND HISTORIC DISTRICT IN THE VILLAGE OF WALES STUDY AREA: 2000

Number on Map 20	Historic Name or Reference	Address or General Location	Civil Division
1[a]	Statesan Historic District consisting of a historic tuberculosis sanitarium, two dormitories, a dining hall, a power plant, a church, two office buildings, a barn, a root cellar, a machine shed, a jail/correctional facility, a U.S. Air Force TP-418 jet, two storage buildings, and another distinct building	Boys School Rd.; NE ¼ of Section 32	Town of Delafield
2[a]	Ten Chimneys	S42 W31610 Depot Rd.	Town of Genesee
3[a]	Genesee Depot Amusement Hall	S42 W31400 Hwy 83	Town of Genesee
4	Residence	W330 S465 Kettle Moraine Dr.	Town of Delafield
5	Residence	W334 S1224 Cushing Park Rd.	Town of Delafield
6	Moriah Church	S14 W33980 Hwy 18	Town of Delafield
7	Residence	W329 S152 Kettle Moraine Dr.	Town of Delafield
8	Residence	S11 W31252 Laughhun Dr.	Town of Delafield
9	Residence	S11 W30102 Hwy 18	Town of Delafield
10	Cadwalader Jones Residence and Barn	315 E. Summit Ave.	Village of Wales
11	Retail Building	245 E. Summit Ave.	Village of Wales
12	David Felix Residence	118 E. Main St.	Village of Wales
13	Residence	224-226 E. Main St.	Village of Wales
14	Morgan Jones Residence	238 E. Main St.	Village of Wales
15	Wales Bank/Wales Centennial	102-106 W. Main St.	Village of Wales
16	Residence	112 W. Main St.	Village of Wales
17	Village Hall	129 W. Main St.	Village of Wales
18	Jerusalem CM Welsh Church	207 W. Main St.	Village of Wales
19	Hugh Elias Residence	208-210 W. Main St.	Village of Wales
20	School	237 W. Main St.	Village of Wales
21	William H. Elias Residence	101 James St.	Village of Wales
22	Wales Post Office	110 James St.	Village of Wales
23	Office Building	203 James St.	Village of Wales
24	Reverend R. J. Evans Residence	312 James St.	Village of Wales
25	Old Village Hall and Fire Station	109 Elias St.	Village of Wales
26	J.J. Rees Residence	121 Elias St.	Village of Wales
27	Chicago Northwestern Railroad Bridge	CTH G; SE ¼ of Section 4	Village of Wales
28	Residence	410-430 Hwy 83	Village of Wales
29	Residence	225 Cymric Ct.	Village of Wales
30	Salem Cemetery	Hwy 83; NE ¼ of Section 8	Village of Wales
31	Residence	S20 W30814 CTH G	Town of Genesee
32	"King Jones" Residence; "Bronyberllan"	S20 W30819 CTH G	Town of Genesee
33	Thomas Jones Residence	S16 W32772 Hwy 18	Town of Genesee
34	Residence	W329 S1580 Hwy 18	Town of Genesee
35	District #13 School; Moriah School	S14 W33989 Hwy 18	Town of Genesee
36	Residence	S29 W33098 Morris Rd.	Town of Genesee
37	Residence	S28 W31318 CTH DE	Town of Genesee
38	Residence	S30 W30896 CTH DE	Town of Genesee
39	Residence	W304 S2484 Boettcher Rd.	Town of Genesee
40	Residence	W306 S2399 Boettcher Rd.	Town of Genesee
41	Residence	S31 W29708 CTH DE	Town of Genesee
42	Residence	S30 W29838 CTH DE	Town of Genesee
43	St. Paul's Lutheran Cemetery	CTH DE; SE ¼ of Section 10	Town of Genesee
44	Barn; Wern Farm	S36 W29633 CTH D	Town of Genesee
45	Residence; Wern Farm	S36 W29633 CTH D	Town of Genesee
46	Residence	S31 W30803 CTH DE	Town of Genesee
47	Shed	CTH D; SW ¼ Section 15	Town of Genesee
48	Barn	W316 S3636 Hwy 83	Town of Genesee
49	Capel Log/Jerusalem Cemetery	CTH G; NW ¼ of Section 9	Town of Genesee
50	Owen and Jennie Jones Residence, "Tanrallt"	S27 W32569 CTH G	Town of Genesee
51	Bryn Mawr Hill	Bryn Mawr Rd; NE ¼ of Section 18	Town of Genesee
52	Bethania Church	S31 W33231 CTH G	Town of Genesee
53	Jon Evans Farm; "Tan-y-Bryn"	S31 W33372 CTH G	Town of Genesee

Table 23 (continued)

Number on Map 20	Historic Name or Reference	Address or General Location	Civil Division
54	Residence	S31 W33540 CTH G	Town of Genesee
55	Residence	S31 W 33372 CTH G	Town of Genesee
56	Residence	W329 S4229 CTH E	Town of Genesee
57	Residence	W314 S3986 Hwy 83	Town of Genesee
58	District #5 School	W313 S4134 Hwy 83	Town of Genesee
59	Lunt-Fontaine Gatehouse	W314 S4151 Hwy 83	Town of Genesee
60	Church	Hwy 83; NE ¼ of Section 21	Town of Genesee
61	Residence	S42 W34128 Hwy 83	Town of Genesee
62	Residence	W314 S4323 Hwy 83	Town of Genesee
63	Residence	S42 W31320 Hwy 83	Town of Genesee
64	Genesee Depot Station	S42 W32138 Hwy 83	Town of Genesee
65	Retail Building	S42 W31230 Hwy 83	Town of Genesee
66	Post Office	W313 S4343 Hwy 83	Town of Genesee
67	Storage Building	S42 W31254 Hwy 83	Town of Genesee
68	Barn	S42 W31216 Hwy 83	Town of Genesee
69	Residence	S43 W31257 Hwy 83	Town of Genesee
70	Residence	W313 S4335 Hwy 83	Town of Genesee
71	Residence	S43 W31127 Hwy 83	Town of Genesee
72	Dairy Farm Building	W305 S3990 Brookhill Rd.	Town of Genesee
73	Residence	W304 S4182 Brookhill Rd.	Town of Genesee
74	Brookdale Village consisting of three residences and a silo	W305 S4095 Brookhill Rd.	Town of Genesee
75	Residence	W308 S4484 Hwy 83	Town of Genesee
76	Outbuildings	4217 GG Rd.	Town of Ottawa

[a] *Listed on both the National and State Registers of Historic Places.*

Source: U.S. Department of the Interior, State Historical Society of Wisconsin, Waukesha County, Village of Wales, and SEWRPC.

Schools

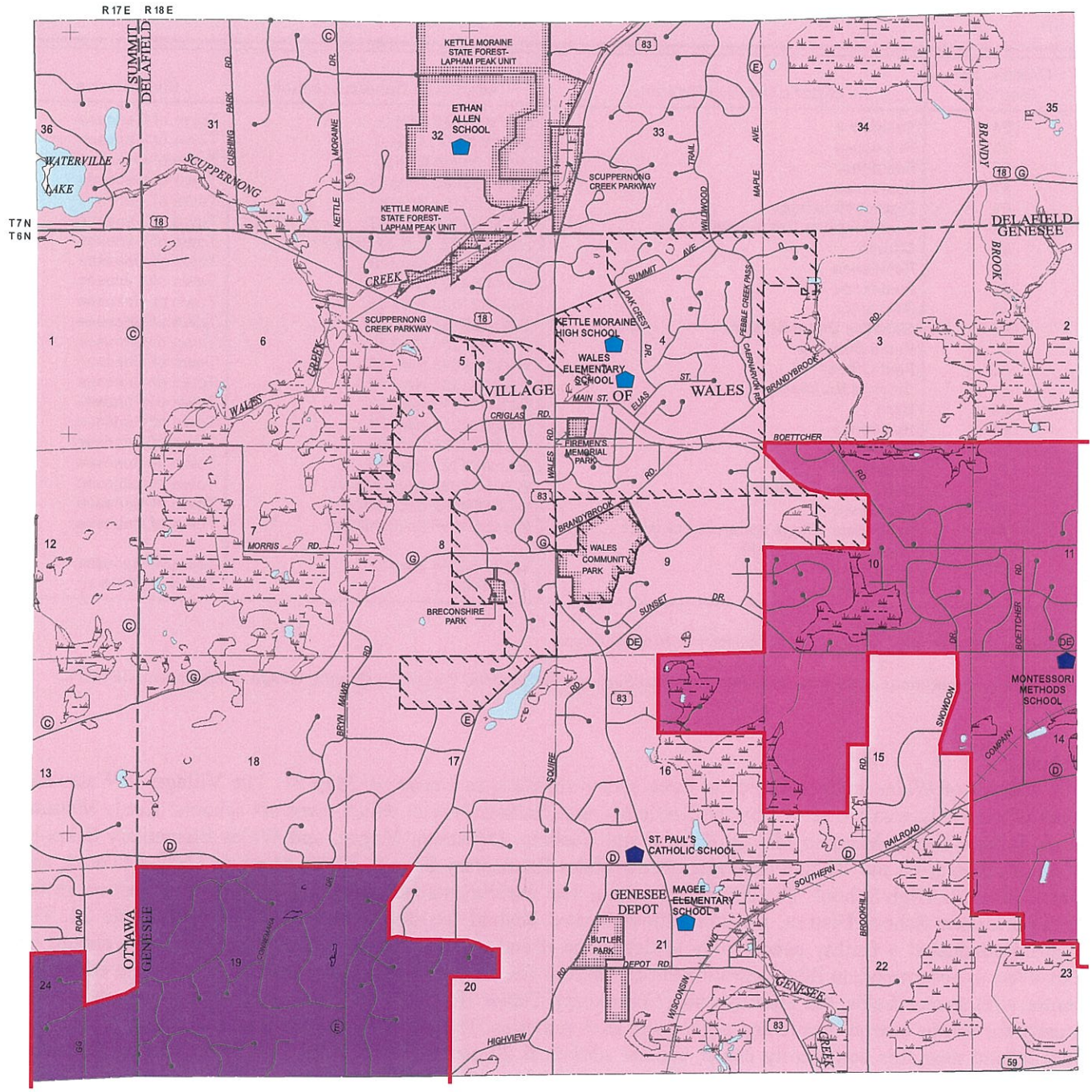
The Village of Wales study area lies in three school districts, as shown on Map 21. The Village of Wales and most of the study area are served by the Kettle Moraine School District which owns six schools: Kettle Moraine High School, Kettle Moraine Middle School, and Cushing, Dousman, Magee, and Wales Elementary Schools. Most children from the Village of Wales attend Wales Elementary School, Kettle Moraine Middle School, and Kettle Moraine High School. The 2000-2001 school year enrollments and capacities of each public school in the Kettle Moraine School District, including those located beyond the study area, are set forth in Table 24. The District conducted a facility needs study to determine if and to what extent certain school facilities should be expanded to accommodate future enrollments and needs. The District owns and operates a community education center with soccer fields, the Brandybrook Community Center (formerly an elementary school), which is used mostly for senior citizen events and other incidental activities. The District also owns an additional 73 acres of vacant land near this community center and an additional 22 acres of vacant land near the existing Dousman Elementary School and Kettle Moraine Middle School for potential future facilities.

It should be noted that the Kettle Moraine School District has the highest percentage of schools of any district in Wisconsin that have received the coveted national recognition as a Blue Ribbon School. In the past, all of the District schools were selected by the United States Department of Education-Recognized School of Excellence Program to receive this prestigious education award for their excellence in leadership, teaching, curriculum, student achievement, parent involvement, and community support.

In addition to the schools described above, Ethan Allen School, which is a State correctional facility, and two private schools, Montessori Methods School and St. Paul Catholic School, exist in the study area. Ethan Allen

Map 21

SCHOOLS AND SCHOOL DISTRICT BOUNDARIES IN THE VILLAGE OF WALES STUDY AREA: 2000



Source: SEWRPC.

Table 24

2000-2001 SCHOOL YEAR ENROLLMENTS AND CAPACITIES
FOR PUBLIC SCHOOLS IN THE KETTLE MORAINE SCHOOL DISTRICT

School	2000-2001 Enrollment	School Capacity	Average Class Size
Wales Elementary School (grades K-5)	452	475	22
Cushing Elementary School (grades K-5)	531	475	21
Dousman Elementary School (grades K-5)	477	475	21
Magee Elementary School (grades K-5)	330	300	22
Kettle Moraine Middle School (grades 6-8)	1,025	1,050	24
Kettle Moraine High School (grades 9-12)	1,468	1,500	25
Total	4,283[a]	4,275	--

[a]*This total does not include 27 "nonattending" students which are those that are enrolled in the District but attend schools other than the Kettle Moraine District public schools.*

Source: Kettle Moraine School District and SEWRPC.

School is a juvenile detention and treatment facility located northwest of the Village of Wales. St. Paul Catholic School is located south of the Village of Wales in the Genesee Depot area and serves kindergarten to 8th grade. Montessori Methods School is located east of the Village and serves pre-school to 6th grade.

Three institutions of higher education are also within reasonable commuting distances from the Village of Wales. The University of Wisconsin-Waukesha (UWW) in the City of Waukesha is one of 14 two-year campuses in the University of Wisconsin system. UWW offers a well-balanced program of liberal and professional courses that may be transferred to four-year colleges and universities. Another public college is the Waukesha County Technical College, located in the Village of Pewaukee. This college is part of the State of Wisconsin Vocational, Technical, and Adult Education system. The Kettle Moraine School District is a part of this program, and provides adult evening classes. The college offers various types of general programs consisting of associate degree programs, vocational diploma programs, adult and continuing education programs, and apprenticeship training. Also located in the City of Waukesha is Wisconsin's oldest college, the private Carroll College, which offers various bachelor and master degree programs.

Village Hall and General Administration

The Wales Village Hall is located at 129 W. Main Street in a former bank building that was constructed in 1961 and later purchased by the Village in 1972. The building is centrally located in the community within the Historic Village Center and houses administrative offices while also serving as a place for conducting official Village meetings, such as Village Board and Plan Commission meetings. As the Village has grown, the Village Hall was also expanded in 1996 to accommodate additional administrative offices, a meeting room, and a new restroom. The Village has no plans to further expand the building in the near future.

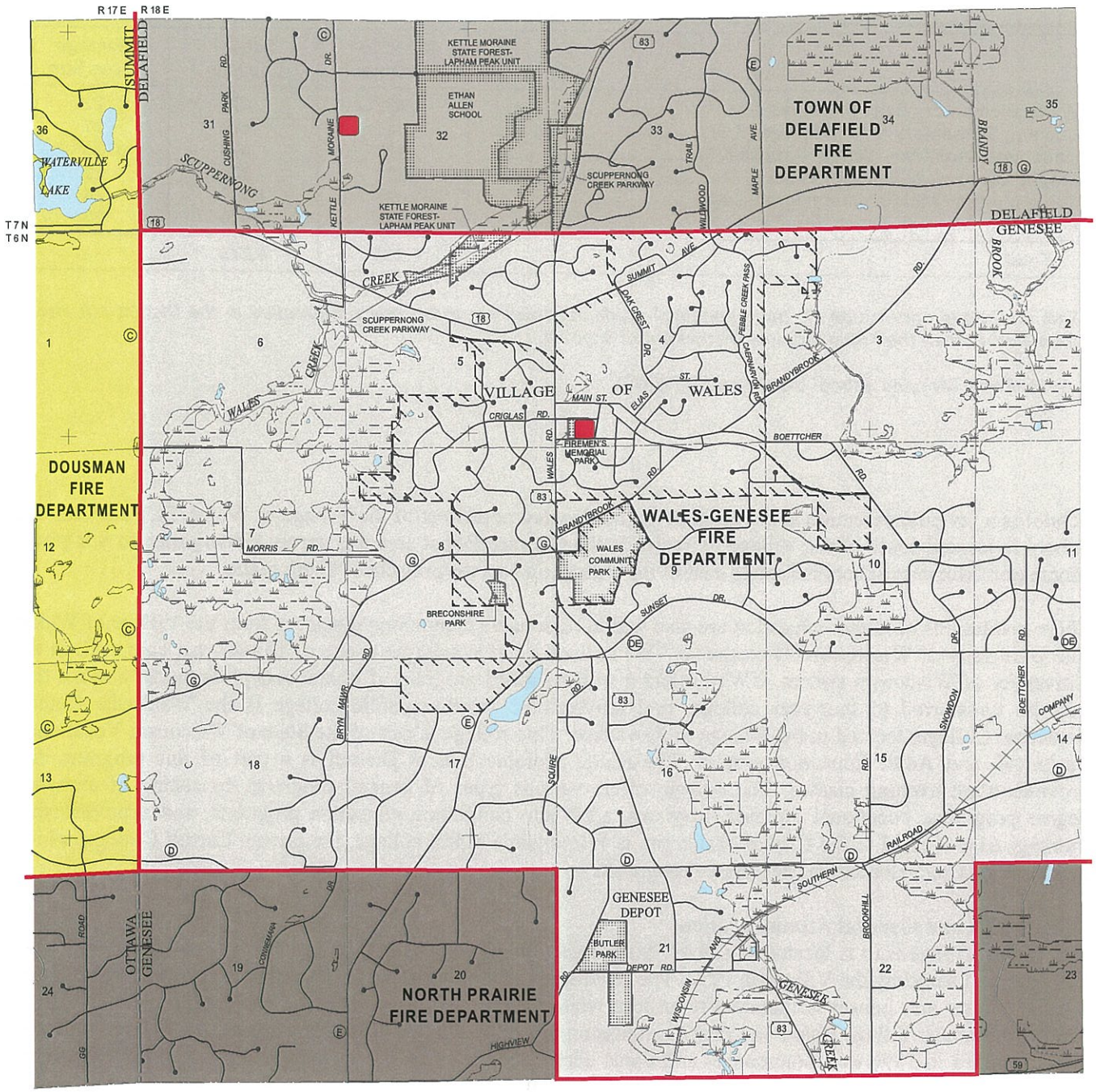
The Village contracts with private companies for the maintenance of utilities and roads. Public grounds are maintained by one full-time employee with additional hired help in the summer. The maintenance equipment is presently stored in a rented building in the Village.

Fire Protection, Emergency Medical Services, and Law Enforcement

The Village of Wales study area is served by the Dousman, North Prairie, Town of Delafield, and Wales-Genesee Fire Departments, as shown on Map 22. The Village of Wales and most of the study area is served by the Wales-Genesee Fire Department located at 216 South Street in the Village. The Department is staffed by 39 volunteer

Map 22

FIRE STATIONS AND SERVICE AREAS IN THE VILLAGE OF WALES STUDY AREA: 2000



Source: SEWRPC.

members consisting of 11 firefighters, eight emergency medical technicians (EMT's), 20 EMT/firefighters, and one full-time paid fire chief. The station has six pieces of fire-fighting and rescue equipment consisting of three pumpers, a grass fire truck, and two ambulances. Land was recently purchased southeast of the intersection of STH 83 and CTH G (S. Brandybrook Road) for a new fire station to replace the existing station. After the relocation, the Village plans to use the existing station as a public works building for storing maintenance equipment, which is currently stored in a rented building. The Department has mutual aid agreements with other surrounding fire departments in Waukesha County for additional fire-protection services if needed.

The Village relies on the Waukesha County Sheriff's Department for law enforcement.

Solid Waste Disposal
The Village relies on a private firm for removal and disposal of solid waste. Trash and recyclable materials are collected on a weekly basis by the firm. There are no active landfill sites in the study area.

UTILITIES

Utility systems are one of the most important elements influencing community growth and development. Urban development today is highly dependent on these utility systems, which provide the individual user with power, light, communication, heat, water, and sanitary sewer service. Information about these utilities is essential to any master planning effort.

Sanitary Sewerage
All developed properties in the Village rely on private onsite sewage-disposal systems. A private sewage treatment plant, which serves the Ethan Allen School, is located northwest of the Village. A sanitary sewerage system plan for the northwestern part of Waukesha County, which includes the Wales area, was recently completed. The report evaluates alternative treatment plant operations for the Delafield-Hartland Water Pollution Control Commission (Dela-Hart) sewage treatment plant in order to serve the increasing growth in its service area, including potential sanitary sewerage services for the Wales area beyond the year 2010, as discussed in the next chapter.

Water Supply
Water for domestic and other use in the Village is supplied by groundwater through the use of private wells. The Village of Wales does not have a public water supply system. A discussion of groundwater resources in the Village can be found in Chapter III.

Stormwater Drainage
Stormwater in the Village of Wales drains through natural watercourses, roadside ditches, and culverts. The Village does not have an engineered community-wide stormwater drainage system. However, such a system for a portion of the historic Village Center was recently completed.

Quasi-Public Utilities
Urban development in the Wales area is served by private utilities such as electric power, natural gas, and communication facilities. The Village of Wales is provided with electric power service by the Wisconsin Energy Corporation. Electric power service is available on demand throughout the Wales area and, accordingly, the availability of electric power does not constitute a constraint on the location and intensity of urban development in the study area. There are no electric power generation facilities located within the study area.

Other private utility services provided in the Wales area include natural gas service, which is also provided by the Wisconsin Energy Corporation; telephone services from Century Tel Company; and cable services from Time Warner Cable. In general, all such private services are available on demand throughout the study area.

SUMMARY

If the master plan is to constitute a sound and realistic guide for making decisions concerning the physical development of the Village and environs, pertinent features of the built environment must be given due consideration. This chapter has presented a description of the existing land use pattern and other aspects of the developed environment of the Village of Wales. The most important findings are described below.

- Of the approximately 25-square mile study area, about 9.9 square miles, or 40 percent, were devoted to urban land uses. Nonurban land uses occupied about 15.2 square miles, or 60 percent of the study area. In 2000, the Village of Wales occupied about 2.4 square miles, or 10 percent of the study area. Urban land uses occupied about 1.7 square miles, or 72 percent of the Village; nonurban land uses occupied about 0.7 square mile, or 28 percent of the Village.

- Residential uses were the largest land use in the study area in 2000, encompassing 28 percent of the study area. The next largest group was agricultural-related uses, encompassing 27 percent of the study area. Residential land uses represented about 21 percent of the study area. Natural resource areas consisting of wetlands, woodlands, and water represented about 24 percent of the study area. Residential uses, consisting mostly of single-family residential development, was also the predominant land use in the Village, encompassing about 52 percent of the incorporated area.

- The large number of potentially significant historic buildings, especially in the Historic Village Center, indicates that the Village is rich in historic resources. Within in the study area, two buildings in the Town of Genesee, the Ten Chimneys and Genesee Depot Amusement Hall (presently the Wales-Genesee Lions Club), and the Statesan Historic District (currently the Ethan Allen School site) in the Town of Delafield, which consists of 16 distinct historic features, are listed on both the National and Wisconsin State Registers of Historic Places. Seventy-three other historic places in the study area were identified in one or more surveys as potentially significant pending further research, including 21 potential sites within the Village of Wales.

- The Village of Wales study area is mostly served by the Kettle Moraine School District. Overall, the study area lies within three school districts—the Kettle Moraine, Mukwonago, and Waukesha School Districts. Most of the children in the Village attend Wales Elementary School, Kettle Moraine Middle School, and Kettle Moraine High School. The elementary and high schools are located in the Village of Wales and the middle school is located in the Village of Dousman.

- All Village administrative offices are located in the Village Hall at 129 W. Main Street. Roads and utilities are maintained by private firms and utility companies, while the public grounds are maintained by one-full time Village employee with additional hired help in the summer.

- Fire protection and emergency medical services in the Village are provided by the Wales-Genesee Fire Department. A new fire station is to be constructed southeast of the intersection of STH 83 and CTH G, which would replace the existing station that will eventually be converted into a public works building. The Department has mutual aid agreements with other surrounding fire departments in Waukesha County that may be called upon for additional fire-protection services. Law enforcement services in the Village are provided by the Waukesha County Sheriff's Department.

- In the Village of Wales, sanitary sewerage is treated by onsite sewage-disposal systems; domestic water is provided from on-site private wells; and stormwater drains through mostly natural watercourses, roadside ditches, and culverts. The Village does not have a public sanitary sewerage system, public water supply system, nor engineered communitywide stormwater drainage system. Solid waste and recyclable materials are collected weekly by a private firm.

- The Wales area is well-served by electric power, natural gas, and communication facilities. Electric power and natural gas services are provided within the study area by the Wisconsin Energy Corporation. Telephone service is provided by Century Tel Company, and cable services are provided by Time Warner Cable.

Chapter V

EXISTING PLANS, MAPPING RESOURCES, AND REGULATIONS

The master plan for the Village of Wales is intended, in part, to refine and detail adopted areawide and local plans as those plans pertain to the study area. In addition, the plan should take into account local planning objectives reflected in locally adopted land use control ordinances. Accordingly, an important step in the planning process was the assembling of information pertaining to the existing framework of areawide and local plans, topographic and cadastral maps, and related land use regulations. This chapter presents, in summary form, the inventory findings with respect to these matters.

EXISTING PLANS

A number of areawide plans that relate to the Village of Wales should be considered while preparing the Village master plan. The Southeastern Wisconsin Regional Planning Commission (SEWRPC) is the official areawide-planning agency for the seven-county Southeastern Wisconsin Region, which includes Waukesha County and the Village of Wales. Since its creation in 1960, the Commission has prepared comprehensive plans for the physical development of the Region. While always advisory in nature to the government agencies concerned and to private sector interests, this framework of regional plan elements is intended to serve as a basis for more detailed county and local government planning, and is intended to influence both public and private sector decision-making with respect to development matters. An understanding of pertinent recommendations contained in regional, county, and local plans is, therefore, important to the proper preparation of a master plan for the Village of Wales.

County and Regional Land Use Plans

In 1992, Waukesha County requested the Regional Planning Commission to assist the County in preparing a development plan for Waukesha County. The adopted County development plan is documented in SEWRPC Community Assistance Planning Report No. 209, *A Development Plan for Waukesha County, Wisconsin*, August 1996. The development plan is comprised of four plan elements, a land use plan and supporting transportation, housing, and park and open space plans. While the development plan applies primarily to the 13 civil towns which then comprised[1] the unincorporated territory of the County, the plan is also intended to provide guidance to the incorporated cities and villages, including the Village of Wales.

The land use element of the County development plan reflects conditions that may be expected upon full development of areas proposed for urban land uses. Full development, or "buildout" conditions, would probably not occur until after the year 2050. In order to assist the County and local units of government in staging urban development and planning for transportation and public utilities, a 2010 stage of the land use element of the

[1]*The Town of Pewaukee has incorporated as a city since the adoption of the County development plan.*

County development plan was prepared and is included in the plan report. The adopted County land use plan under "buildout" conditions, as it pertains to the Village of Wales study area, is shown on Map 23. The County reviews and amends the plan annually; however, no amendments had been made within the study area as of June 2000.

Particularly pertinent to the preparation of a master plan for the Village of Wales are the recommendations for the protection of primary environmental corridors and for the encouragement of a more compact pattern of urban development. Areas not located within environmental corridors or needed to accommodate anticipated future urban development should be maintained in agricultural or other rural uses. The County development plan recommends that urban development be encouraged to occur contiguous to and outward from existing urban centers in areas which are covered by soils suitable for such use; which are not subject to hazards, such as flooding; and which can be readily served by such essential urban facilities as public sanitary sewerage and water supply. These important recommendations provide a basic framework around which a community master plan should be developed.

A regional land use plan, documented in SEWRPC Planning Report No. 45, *A Regional Land Use Plan for Southeastern Wisconsin: 2020*, December 1997, provides recommendations regarding the amount, spatial distribution, and general arrangement of the various land uses required to serve the needs of the existing and anticipated future resident population and economic activity levels within the Region. The 2020 regional plan updates, in general, the recommended 2010 stage of the land use element presented in the Waukesha County Development Plan.

County and Regional Transportation System Plans

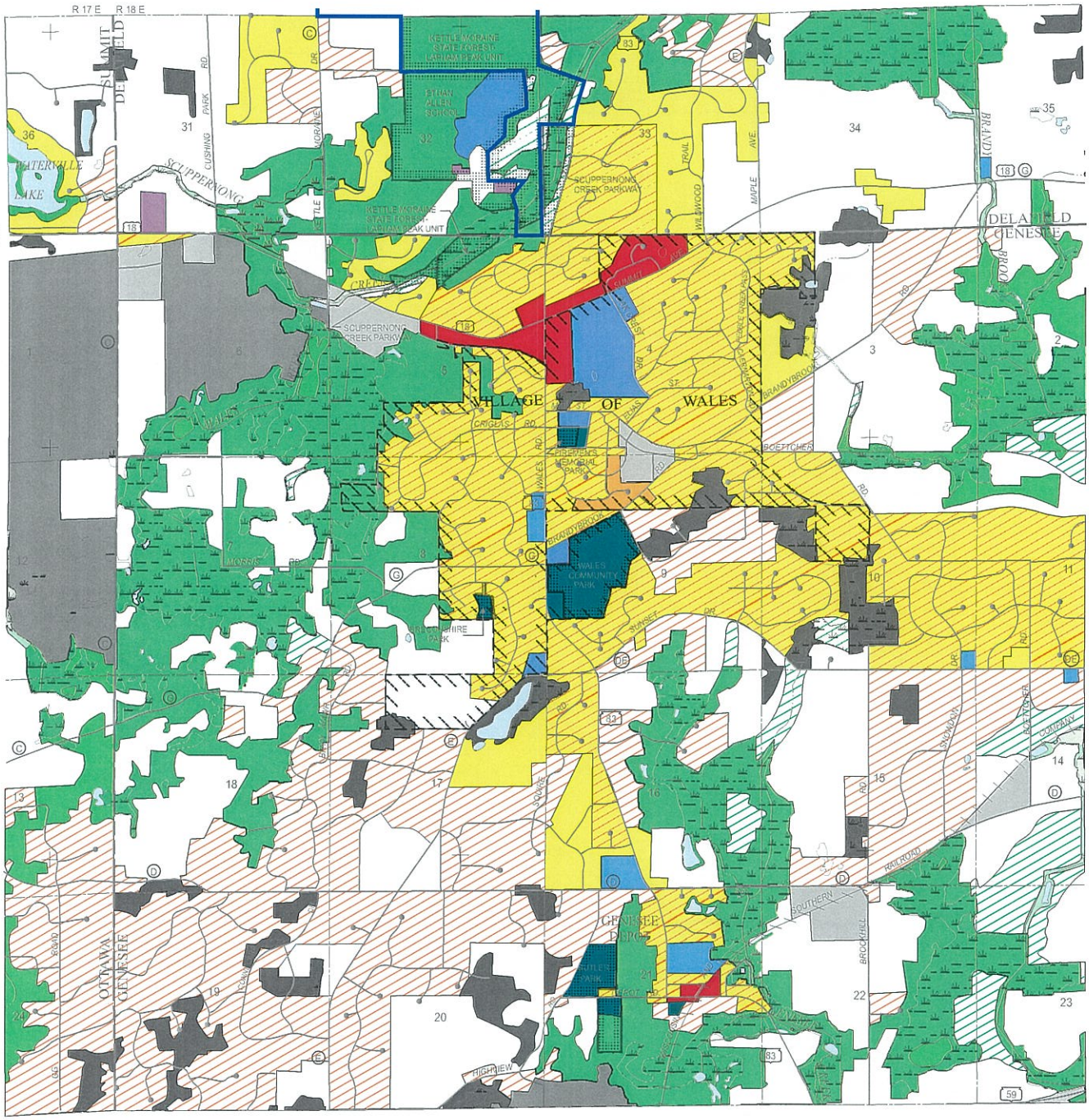
The adopted Waukesha County Development Plan includes a transportation plan. The transportation plan includes an arterial street and highway system plan and a public transit system plan intended to serve the County through the year 2010 and beyond. The document also describes additional functional improvements to these systems that may be expected to serve the County under full development, or "buildout" conditions, of urban areas shown in the adopted County land use plan. The additional improvements related to the Village of Wales study area include widening USH 18 from STH 83 to STH 67 to accommodate four lanes, and widening STH 83 from IH 94 to USH 18 to accommodate six lanes and from CTH DE to STH 59 to accommodate four lanes.

The adopted regional transportation system plan, presented in SEWRPC Planning Report No. 46, *A Regional Transportation System Plan for Southeastern Wisconsin: 2020*, December 1997, provides recommendations on how the regional land use plan can best be served by arterial street and highway and transit facilities. The regional plan updates the 2010 stage of the Waukesha County Development Plan. It recommends a functional and jurisdictional system of arterial streets and highways to serve the Region through the design year 2020, together with a functional network of various types of transit lines. The regional transportation system plan was developed on the basis of careful quantitative analyses of existing and probable future traffic movements within the Region, and of existing highway and transit system capacity and use. The adopted 2020 regional transportation system plan, as it pertains to the Village of Wales study area, is shown on Map 24 and notes the additional improvements that may be needed under "buildout" conditions of the adopted Waukesha County land use plan. Under the plan, the following highways in the study area would be removed from the arterial highway system and become part of the local nonarterial street system: CTH G throughout the study area, CTH C south of USH 18, and CTH E north of USH 18.

An adopted regional bicycle and pedestrian facilities system plan, presented in SEWRPC Planning Report No. 43, *A Regional Bicycle and Pedestrian Facility System Plan for Southeastern Wisconsin: 2010*, December 1994, and in an amendment thereto in December 2001, provides recommendations to encourage increased bicycle and pedestrian travel in a safe and efficient manner as alternatives to travel by automobile within the Region. The plan includes a recommended regional bicycle-way system designed to provide connections between urbanized areas and incorporated areas with a population of 5,000 or more located outside of urbanized areas and connections to major parks and other major activity centers. Map 25 depicts approximately 6.3 linear miles of bicycle-ways recommended under the regional plan as related to the Village of Wales study area.

Map 23

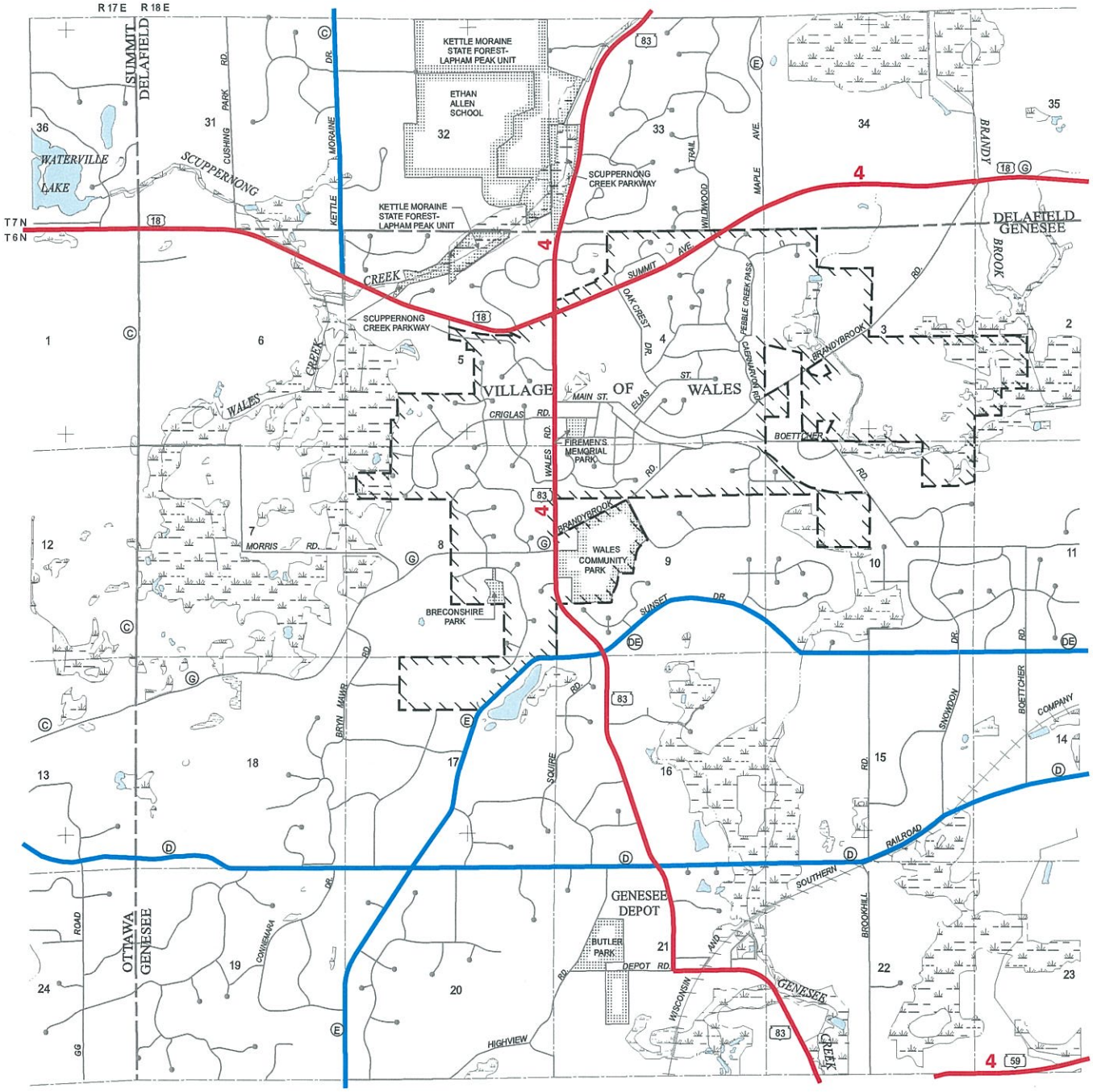
ADOPTED WAUKESHA COUNTY LAND USE PLAN AS RELATED TO THE VILLAGE OF WALES STUDY AREA



Source: Waukesha County and SEWRPC.

Map 24

YEAR 2020 REGIONAL TRANSPORTATION SYSTEM PLAN AS RELATED TO THE VILLAGE OF WALES STUDY AREA



ARTERIAL STREET AND HIGHWAY SYSTEM

STATE TRUNK HIGHWAY

COUNTY TRUNK HIGHWAY

4 NUMBER OF TRAFFIC LANES (2 WHERE UNNUMBERED)

NOTE: BASED UPON BUILDOUT CONDITIONS FOR THE ADOPTED WAUKESHA COUNTY DEVELOPMENT PLAN, RECOMMENDED CHANGES TO THE YEAR 2020 WAUKESHA COUNTY ARTERIAL STREET AND HIGHWAY SYSTEM PLAN INCLUDE WIDENING USH 18 FROM STH 83 TO STH 67 TO ACCOMMODATE FOUR LANES, AND WIDENING STH 83 FROM IH 94 TO USH 18 TO ACCOMMODATE SIX LANES AND FROM CTH DE TO STH 59 TO ACCOMMODATE FOUR LANES.

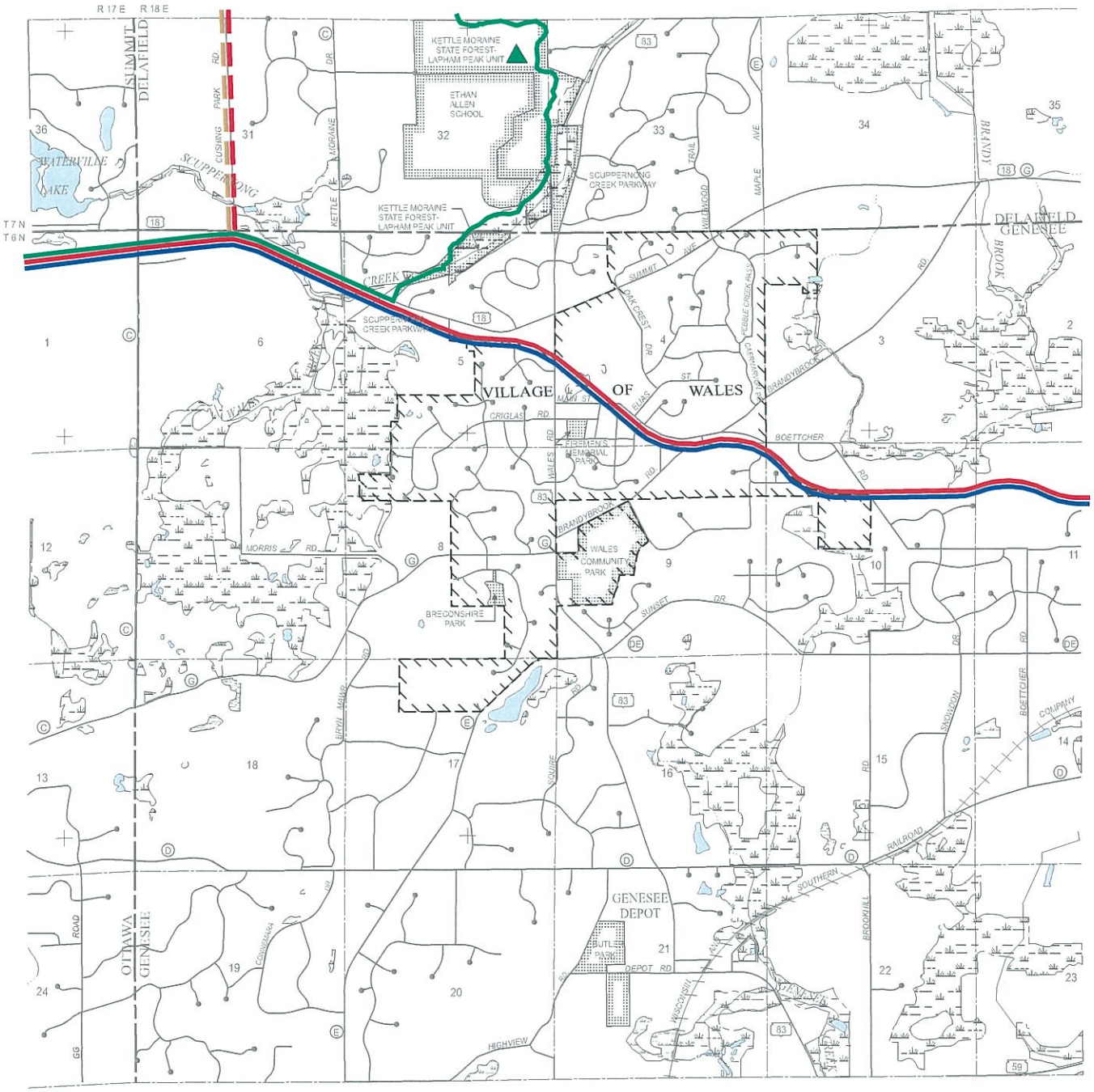
GRAPHIC SCALE

0 2500 5000 FEET

Source: SEWRPC.

Map 25

ADOPTED REGIONAL BICYCLE-WAY SYSTEM PLAN AND THE OUTDOOR RECREATION ELEMENT OF THE ADOPTED WAUKESHA COUNTY PARK AND OPEN SPACE PLAN AS RELATED TO THE VILLAGE OF WALES STUDY AREA



OUTDOOR RECREATION ELEMENT

- EXISTING STATE PARK
- EXISTING ICE AGE TRAIL
- EXISTING AREAWIDE TRAIL
- PROPOSED AREAWIDE TRAIL

BICYCLE-WAY SYSTEM ELEMENT

- EXISTING STATE BICYCLE-WAY IN UTILITY CORRIDOR
- PROPOSED COUNTY BICYCLE-WAY IN STREET OR HIGHWAY RIGHT-OF-WAY

NOTE: TRAILS AND BICYCLE-WAYS SHOWN PARALLEL TO EACH OTHER SHARE THE SAME TRAIL.

GRAPHIC SCALE

0 2500 5000 FEET

Source: Waukesha County and SEWRPC.

Park and Open Space Plans

The adopted regional park, outdoor recreation, and related open space plan, as described in SEWRPC Planning Report No. 27, *A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000*, November 1977, identifies existing and probable future park and open space needs within the Region and recommends a system of large regional resource-oriented parks, recreational corridors, and smaller urban parks, together with attendant recreational facilities, to meet these needs. The portion of the regional park plan that applies to Waukesha County, including the Village of Wales study area, was revised in 1989 and is documented in SEWRPC Community Assistance Planning Report No. 137, *A Park and Open Space Plan for Waukesha County.* In 1996, the County plan was updated and included as an element of the adopted Waukesha County Development Plan mentioned earlier. The plan consists of both an open space preservation element and an areawide outdoor recreation element, intended to, respectively, protect areas containing important natural resources and to provide resource-oriented recreational sites and facilities. These two elements of the County plan, as they pertain to the Village of Wales study area, are depicted on Maps 25 and 26.

The Waukesha County park and open space plan takes into account the recommendations of a regional natural areas plan documented in SEWRPC Planning Report No. 42, *A Natural Areas and Critical Species Habitat Protection and Management Plan for Southeastern Wisconsin*, September 1997. The regional natural areas plan recommends the protection and preservation of such areas in the Region as an important supplement to the open space preservation recommendations of the regional and County land use and park and open space plans. The primary purpose of the plan is to identify the most significant remaining natural areas, critical species habitats, geological sites, and archaeological sites in the Region, and to recommend means for their protection and management. The plan identifies potential sites to be placed in public or private protective ownership, and other sites to be protected, insofar as it is possible, through zoning or other regulatory means without protective ownership. It also recommends that a detailed management plan be prepared and implemented for each site placed under protective ownership. Map 14 in Chapter III shows the two natural areas, four critical aquatic habitats, and three significant geological sites in the Village of Wales study area as identified in the regional natural areas plan. In addition to the recommendations of the County park and open space plan, the regional natural area plan recommends that the three significant geological sites in the study area be preserved. Specifically, the plan recommends that the sites identified as the Kettle Moraine Interlobate Geological Area and the Scuppernong Creek Spillway, which is also encompassed in the larger Kettle Moraine Interlobate site, be preserved by the Wisconsin Department of Natural Resources (DNR) through the acquisition of those portions of the geological area located within the DNR project boundary for Lapham Peak State Park. The other site, the Delafield Drumlin Fields, is recommended to be preserved, to the extent practicable, through zoning or other regulatory means.

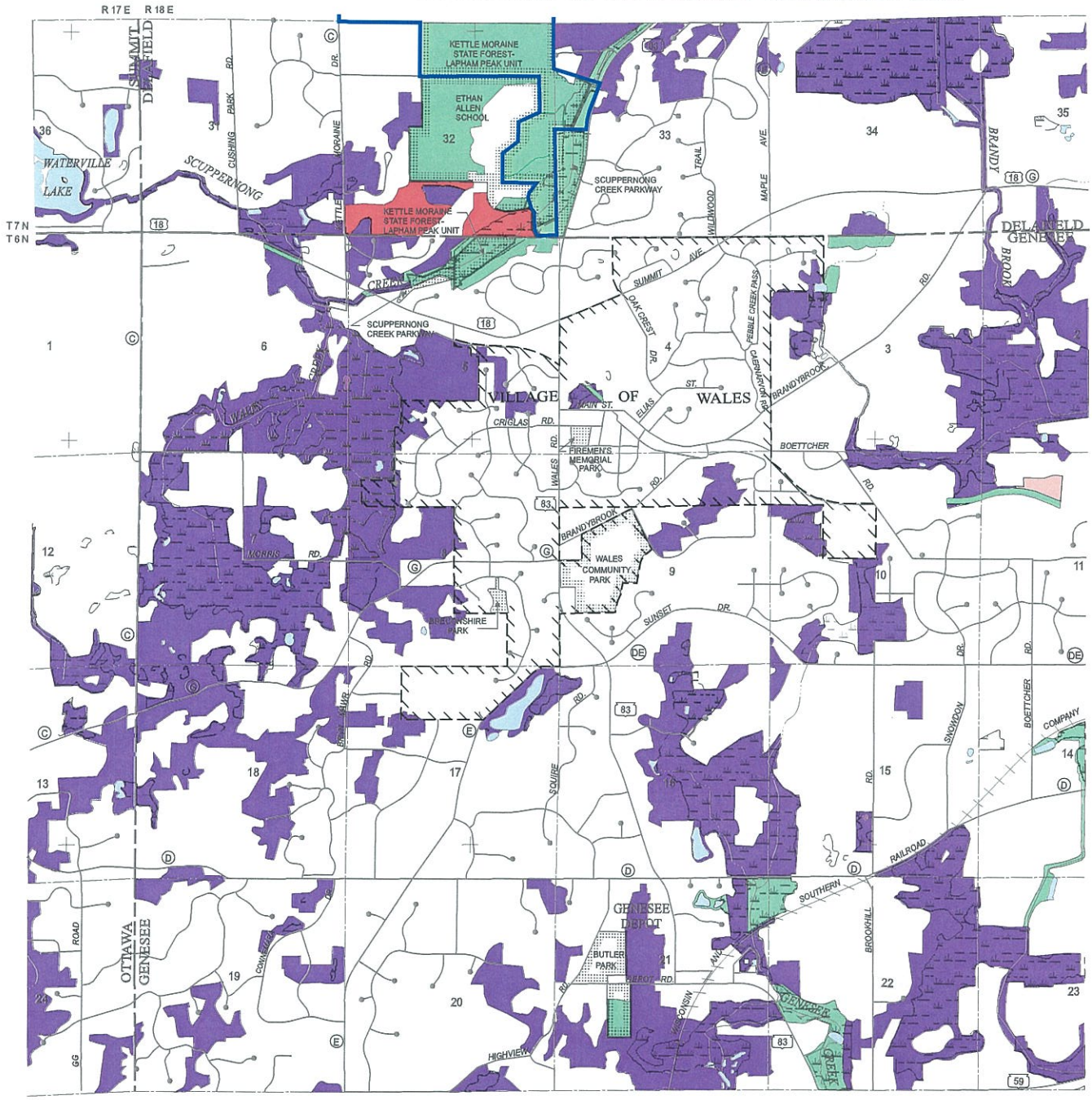
The Village of Wales contracted with Crispell-Snyder, Inc. to assist the Village of Wales Park Board and Board of Trustees in preparing a comprehensive park and recreation plan. The plan, as documented in a *Comprehensive Park Plan for the Village of Wales*, April 1993, identifies park and recreation facilities development standards, presents information on existing and future needs for park and recreation facilities, identifies deficiencies related to existing facilities, and establishes a prioritized action program to manage and improve the existing park and recreation facilities. The document established eligibility for the Village to seek grant funding from the Wisconsin Department of Natural Resources for the acquisition and development of a park site and development of additional recreation facilities. As recommended in this plan, the Village recently acquired and developed two baseball diamonds on a portion of a 79-acre community park located southeast of the intersection of STH 83 and CTH G. The Village plans to continue to construct additional recreation facilities, such as another baseball diamond, a playfield, and soccer fields, on this site in the near future.

Water Quality Management Plans

A regional water quality management plan is intended to provide recommendations to help meet a Federal mandate that the waters of the United States be made, to the extent practical, "fishable and swimmable." The findings and recommendations of the water quality management planning program for Southeastern Wisconsin are described in SEWRPC Planning Report No. 30, *A Regional Water Quality Management Plan for Southeastern Wisconsin—2000*, Volume One, *Inventory Findings*, September 1978; Volume Two, *Alternative Plans*, February 1979; and Volume Three, *Recommended Plan*, June 1979. The regional water quality management plan consists

Map 26

OPEN SPACE PRESERVATION ELEMENT OF THE ADOPTED WAUKESHA COUNTY PARK AND OPEN SPACE PLAN AS RELATED TO THE VILLAGE OF WALES STUDY AREA



EXISTING PUBLIC INTEREST OWNERSHIP OF OPEN SPACE LANDS

- STATE, COUNTY, LOCAL, NONPROFIT CONSERVATION ORGANIZATION, LAKE OR SANITARY DISTRICT, OR COMPATIBLE PRIVATE OUTDOOR RECREATION AND OPEN SPACE SITE

PROPOSED PUBLIC INTEREST OWNERSHIP OF OPEN SPACE LANDS

- STATE OF WISCONSIN
- NONPROFIT CONSERVATION ORGANIZATION

OTHER

- OPEN SPACE LANDS TO BE PROTECTED BY PUBLIC LAND USE REGULATION
- ADOPTED WISCONSIN DEPARTMENT OF NATURAL RESOURCES PROJECT BOUNDARY
- SURFACE WATER

GRAPHIC SCALE

0 2500 5000 FEET

Source: Waukesha County and SEWRPC.

of a land use and sanitary sewer service area element, a point water pollution abatement element, a nonpoint water pollution abatement element, a wastewater sludge management element, and a water quality-monitoring element. The adopted regional water quality management plan includes recommended sanitary sewer service areas attendant to each recommended sewage treatment facility in the Region. These initially recommended sanitary sewer service areas were based upon the urban land use configuration identified in the regional land use plan for the year 2000. As such, delineation of the areas was necessarily general, and did not reflect more detailed local planning considerations. Accordingly, the plan recommends that each community served by public sanitary sewerage facilities refine and detail sanitary sewer service areas for their area.

Even though no public sanitary sewer service area lies within the Village of Wales study area, a sanitary sewerage system plan was completed by the consulting engineering firm Black & Veatch Corporation for the northwestern part of Waukesha County at the request of the local communities in that area, which includes the Village of Wales study area, as shown on Map 27. Preparation of the plan was administered by the Regional Planning Commission on behalf of the communities involved and is documented in a report titled, *Sanitary Sewerage System Plan for the Northwestern Waukesha County Area*, April 2000. As part of the planning program, an evaluation was made of alternative treatment plant options for serving the area. As pertinent to the Village of Wales, the plan recommends the continued operation and expansion of the Delafield-Hartland Water Pollution Control Commission (Dela-Hart) sewage treatment plant. Due to increasing growth in the service area of this plant and the planned connection of the Nashotah-Nemahbin Lakes area, it is expected that the Dela-Hart plant will need to be expanded from its current hydraulic capacity of about 2.2 million gallons per day (mgd) on an average daily flow basis to about 2.7 mgd by the year 2010. Under the long-term buildout conditions within the service area, which assumes that the Wales area will be connected to the Dela-Hart sewerage system at some point after 2010, the plant may need to be expanded to a capacity of nearly 4.0 mgd. If such service is provided to the Wales area, it is assumed that the private wastewater treatment plant serving the Ethan Allen School would be abandoned after connecting to the Dela-Hart sewerage system. The Delafield-Hartland Water Pollution Control Commission has initiated detailed facility planning for a plant expansion with a planned design year of 2020.

TOPOGRAPHIC AND CADASTRAL MAPS

Good, large-scale topographic and cadastral, or real property, maps were essential to the preparation of a master plan for the Village of Wales. Topographic maps, at a scale of one inch equals 200 feet, were prepared for the Village of Wales and surrounding areas in previous years as part of an ongoing topographic mapping program initiated by Waukesha County and administered by the Regional Planning Commission. The topographic mapping, in both digital and hardcopy form, consists of control survey features, such as U.S. Public Land Survey section corners and section lines; planimetric features, such as roads and buildings; hydrographic features, including streams, lakes, and wetlands; and hypsometric features, such as two-foot contour interval lines and spot elevation values.

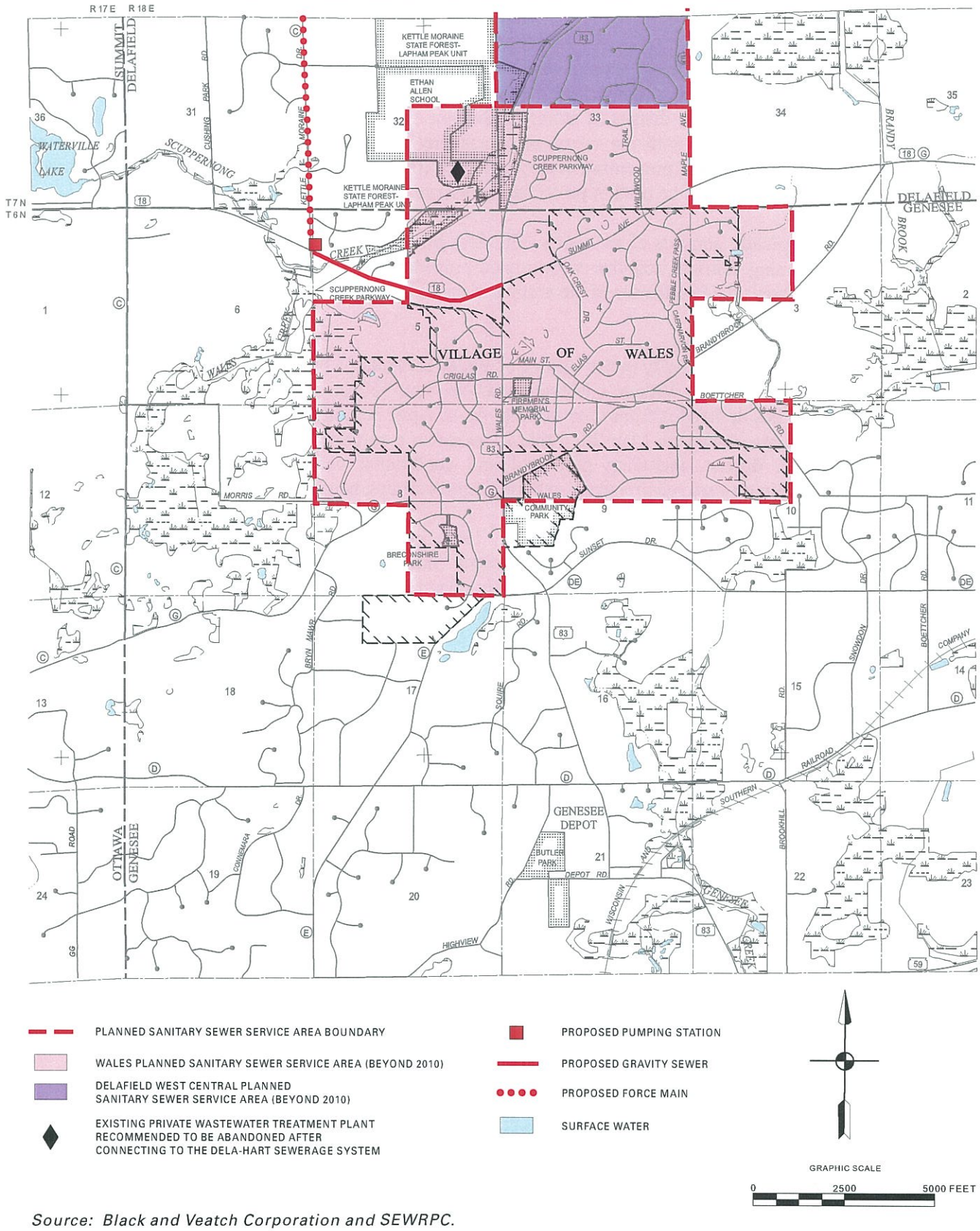
Cadastral maps, at a scale of one inch equals 200 feet, were also prepared for the Village of Wales and surrounding areas as part of a recent cadastral mapping project, again, initiated by Waukesha County and administered by the Regional Planning Commission. The cadastral mapping includes property boundary lines, public street right-of-way boundaries, railway right-of-way boundaries, subdivision and platted land boundaries, and associated text such as property dimensions and tax key numbers. This cadastral mapping is also available in digital and hardcopy form.

LAND USE REGULATIONS

Good community development depends not only on sound long-range planning, but on practical plan implementation as well. Land use and development regulations perform a critical role in assuring that a master plan is properly implemented. The following describes the existing regulations in effect in the Village of Wales study area, including zoning, land division control, official mapping, pertinent State and Federal regulations, and a boundary agreement.

Map 27

NORTHWESTERN WAUKESHA COUNTY SEWERAGE SYSTEM PLAN AS RELATED TO THE VILLAGE OF WALES STUDY AREA



Source: Black and Veatch Corporation and SEWRPC.

Zoning

Zoning is one of the major plan implementation devices available to any community. The primary function of zoning should be to implement the community's master plan. A secondary function of zoning should be to protect desirable existing development. Zoning should be a major tool for the implementation of community plans and not a substitute for such plans.

A zoning ordinance is a law that regulates and restricts the use of private property in the public interest. The ordinance may divide a community into districts to confine or promote certain land uses in areas well suited to those uses. Within a given zoning district, a zoning ordinance may also regulate the height, size, shape, and placement of structures on sites, with the intention of assuring adequate light, air, and open space for each building; reducing fire hazards; and preventing overcrowding, traffic congestion, and the overloading or underuse of utility systems. Zoning may also be used to protect and preserve natural resources.

A zoning ordinance typically consists of two parts. The first part, the text, consists of regulations that apply to each of the various zoning districts, together with related procedural, administrative, and legal provisions. The second part, the map, shows the boundaries of the various districts to which the regulations apply.

Village of Wales Zoning Ordinance

Land development and building activity in the Village of Wales is regulated by the Village of Wales Zoning Code as set forth in Chapter 17 of the Village's Municipal Code. The Village of Wales enacted its initial zoning ordinance in 1964 and has updated it from time to time. As of April 30, 2000, the ordinance contained 12 basic zoning districts, which are shown on Map 28. Table 25 presents a summary of the Village zoning regulations applicable within each district, including permitted and conditional uses, maximum residential densities, minimum lot sizes, minimum yard requirements, and maximum building heights.

Shoreland areas annexed into the Village after May 7, 1982, remain subject to Waukesha County shoreland regulations until the Village adopts shoreland regulations that are at least as restrictive as the County's regulations. The Village adopted the Waukesha County shoreland and floodland zoning regulations as part of the Village zoning ordinance on June 4, 2001. The Village also adopted a Historic Preservation Ordinance on February 5, 1996, to safeguard the Village's historic and cultural heritage as embodied in significant historic structures and sites.

Other Zoning Ordinances

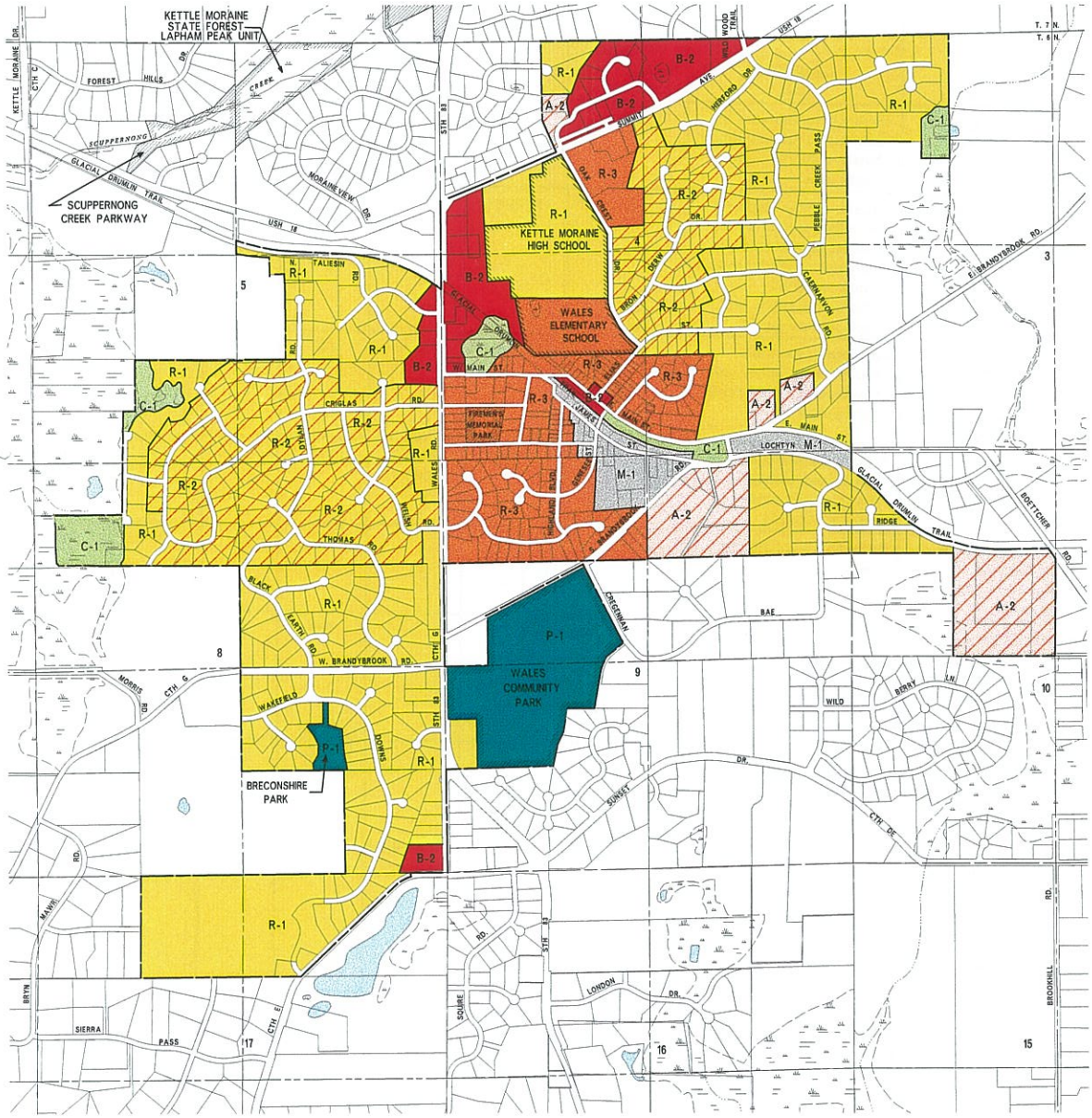
The study area, as noted in Chapter I, lies in Waukesha County and includes portions of the Towns of Delafield, Genesee, Ottawa, and Summit, each of which have zoning regulations. The Towns of Delafield and Summit have adopted their own zoning ordinances under village powers, and, therefore, are not under the jurisdiction of Waukesha County's general zoning ordinance. The Towns of Genesee and Ottawa are, however, regulated by the Waukesha County Zoning Code. All shoreland areas in the four Towns are regulated by the County's shoreland and floodland protection ordinance, explained below. In cases where regulations for the shoreland areas of towns and the County conflict, the more restrictive regulations apply. Map 29 shows the existing zoning districts as of April 30, 2000, on lands in the four towns adjacent to the Village of Wales and within the study area. The zoning regulations for each of the zoning districts shown on Map 29 are summarized in Appendix A.

Waukesha County Ordinances

The Waukesha County Shoreland and Floodland Protection Ordinance was adopted on June 1970 and has been amended periodically. Shorelands are those areas lying within 1,000 feet of the shoreline—ordinary high-water mark—of navigable lakes, ponds, or flowages, or within 300 feet of the shoreline of navigable rivers or streams, or to the landward side of the 100-year recurrence interval floodplain, whichever distance is greater. The floodplains and shorelands in the towns of Waukesha County, including the Towns of Delafield, Genesee, Ottawa, and Summit in the study area, are regulated by this County ordinance. The County ordinance contains 23 zoning districts and two overlay districts. The ordinance includes a C-1 Conservancy/Wetland District that regulates all shoreland-wetlands five acres or larger in size.

Map 28

EXISTING ZONING IN THE VILLAGE OF WALES: 2000



- A-1 AGRICULTURAL (NONE)
- A-2 RURAL HOME
- R-1 RESIDENTIAL
- R-2 RESIDENTIAL
- R-3 RESIDENTIAL
- B-1 RESTRICTED BUSINESS (NONE)
- B-2 LOCAL BUSINESS
- B-3 GENERAL BUSINESS (NONE)
- M-1 LIMITED INDUSTRIAL
- M-2 GENERAL INDUSTRIAL (NONE)
- P-1 PARK AND RECREATION
- C-1 CONSERVANCY

GRAPHIC SCALE

0 1500 3000 FEET

Source: Village of Wales and SEWRPC.

Table 25

SUMMARY OF EXISTING ZONING DISTRICTS FOR THE VILLAGE OF WALES: 2000

Zoning Districts[a]	Permitted Principal Uses	Conditional Uses	Maximum Residential Density (dwelling units per net acre)	Minimum Lot Size			Minimum Building Setbacks			Maximum Principal Building Height (feet)
				Total Area	Open Space per Dwelling Unit	Average Width (feet)	Street Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
C-1 Conservancy	Grazing, harvesting of wild crops, sustained yield forestry, telephone lines, raising of fowl and fish	Animal hospitals, kennels, cemeteries, laboratories, hotels, public and semi-public uses	--	--	--	--	--	--	--	--
A-1 Agricultural	All C-1 permitted uses plus single- and two- family dwellings, agricultural-related uses, truck farming, nurseries, roadside stands, home occupations	Airfield, animal hospitals, kennels cemeteries, crop processing, laboratories, planned unit development, hotels, religious assemblies, public and semi-public uses	0.1	10 acres	3 acres	200	50	20	20	35
A-2 Rural Home	Single- and two-family dwellings, public parks and recreation areas, general farming, horti-culture, home occupations	Religious assemblies, cemeteries, planned unit development, public and semi-public uses	0.3	3 acres	1 acre	200	50	30	30	35
R-1 Residential	Similar to A-2 permitted uses	Religious assemblies, cemeteries, planned unit development, public and semi-public uses	1.0	1 acre	20,000 square feet	120	50	20	20	35
R-2 Residential	Single-family dwellings, public parks and recreation areas, home occupations	Same as R-1 conditional uses	1.45	30,000 square feet	--	120	50	20	20	35
R-3 Residential	All R-2 permitted uses plus two-family dwellings	Religious assemblies, cemeteries, public and semi-public uses, planned unit development, including multiple dwellings	2.9	30,000 square feet	--	100	50	20	20	35
B-1 Restricted Business	Real estate office, deli-catessen, florist, funeral home, gift shop, interior decorator, professional office, restaurant	Religious assemblies, private clubs, cemeteries, public and semi-public uses	--	30,000 square feet	--	100	50	20	20	35
B-2 Local Business	All B-1 permitted uses plus other retail and customer service establishments such as pharmacy, grocery store, beauty shop, bank, clinic	Automobile service station, animal hospitals, kennels, drive-in establishments, laboratories, cemeteries, hotels, religious assemblies, public and semi-public uses	--	30,000 square feet	--	100	50	10	10	35
B-3 General Business	All B-2 permitted uses plus business and trades serving a larger trade area such as wholesalers and distributors, theaters, automobile sales and repair, bottling plants, hotels	Animal hospitals, kennels, cemeteries, drive-in establishments, labora-tories, motels, religious assemblies, public and semi-public uses	--	30,000 square feet	--	100	50	10	10	35
M-1 Limited Industrial	Trades or industries of a restrictive character which are not detrimental to the district or to the adjoining residential areas by reason of appearance, noise, dust, smoke, or odor	Automobile service stations, animal hospitals, kennels, cemeteries, crop proces-sing, laboratories, hotels, public and semi-public uses	--	1 acre	--	150	50	10	10	60
M-2 General Industrial	All M-1 permitted uses except mini-warehouses. Other commercial and similar industrial uses	Same as M-1 conditional uses	--	1 acre	--	150	50[b]	10[c]	10[c]	60

Table 25 (continued)

Zoning Districts[a]	Permitted Principal Uses	Conditional Uses	Maximum Residential Density (dwelling units per net acre)	Minimum Lot Size			Minimum Building Setbacks			Maximum Principal Building Height (feet)
				Total Area	Open Space per Dwelling Unit	Average Width (feet)	Street Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
P-1 Park and Recreation	Recreational uses, arboretums, forest preserves, trails	Amphitheaters, arenas and fieldhouses, art galleries, auditoriums, exhibition halls, indoor skating rinks, museums, nature centers, recreation centers, utilities, animal hospitals, kennels, cemeteries, laboratories, hotels, religious assemblies	--	--[d]	--	--[d]	50	50	50	25

NOTE: This table is a summary and should not be used to answer zoning related questions. Refer to the official Village of Wales Zoning Code for specific zoning district information.

[a] *No floodplain regulations were included in this zoning code since no floodplain studies were conducted to delineate floodplains within the Village even though there appears to be floodplain in the Village based on floodplain information for surrounding areas.*

[b] *100 feet if abutting a residential or agricultural district.*

[c] *100 feet if abutting a Restricted or Local Business District and 200 feet if abutting a residential or agricultural district.*

[d] *Lots shall provide sufficient area for the principal structure and its accessory structures, the operation, off-street parking and loading, and all required yards.*

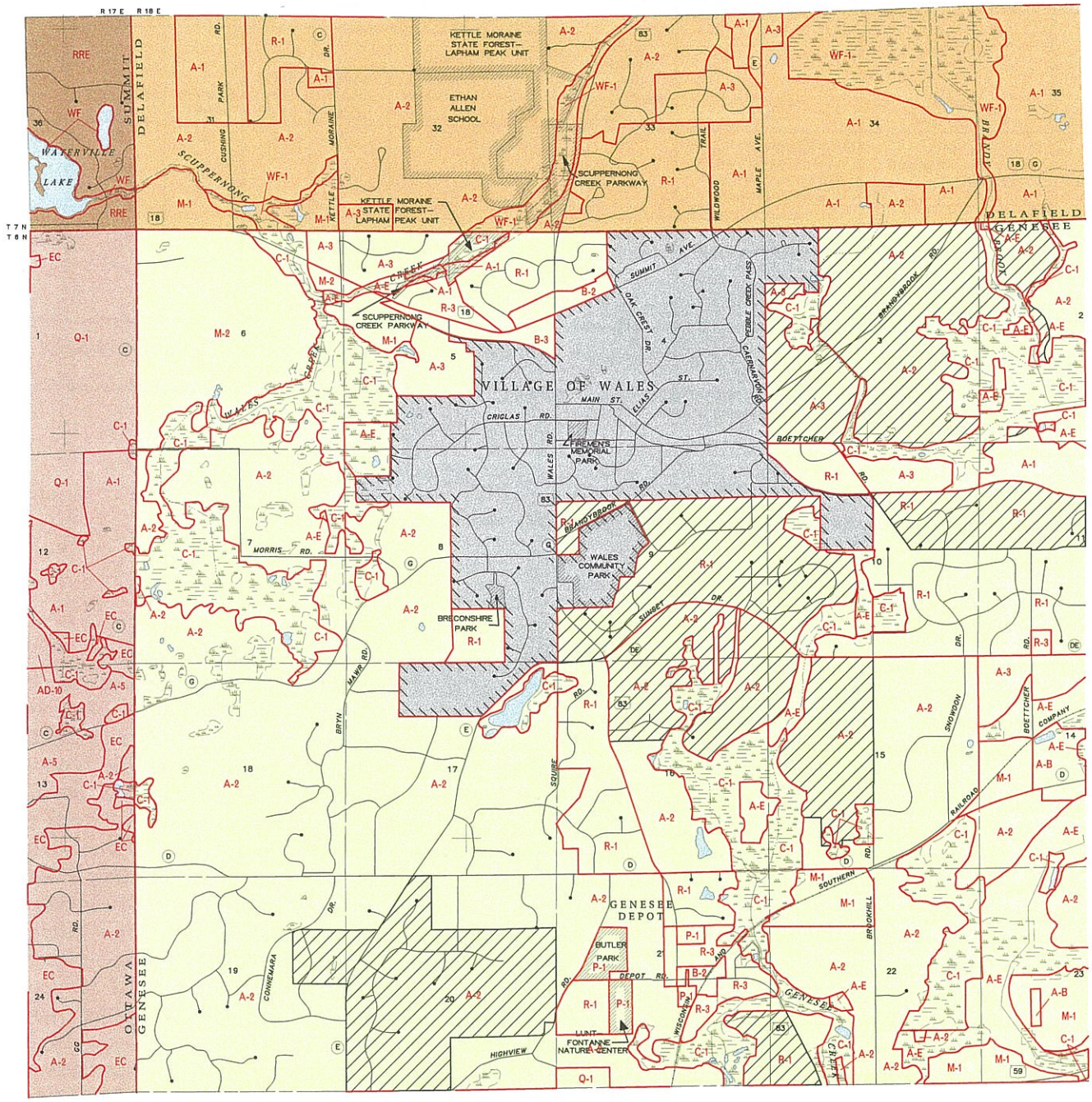
Source: Village of Wales Zoning Code and SEWRPC.

Waukesha County Shoreland and Floodland Protection Ordinance regulations would apply to shoreland areas in the Village of Wales annexed after May 7, 1982. After annexation, the Village is responsible for administering the County regulations on any shoreland areas located on such annexed lands. Section 59.692(7) of the *Wisconsin Statutes* requires county shoreland regulations to remain in effect in areas annexed after that date unless the annexing city or village has adopted shoreland regulations that are at least as restrictive as the county's regulations. County shoreland regulations are usually more restrictive than city or village regulations, because State regulations requiring the adoption of shoreland zoning ordinances specify more restrictive standards for county ordinances than for city and village ordinances. Some of the provisions that must be included in county shoreland ordinances but are not required in city and village ordinances are larger minimum lot sizes; 75-foot minimum setback requirements from shorelines; limitations on clearing vegetation within 35 feet of shorelines; and restrictions on filling, grading, lagooning, dredging, ditching, and excavating in shorelands. The Waukesha County ordinance also includes a 75-foot minimum setback requirement from the 100-year floodplain or the landward edge of the C-1 Conservancy/Wetland District boundary and limitations on the type of accessory structures allowed within this 75-foot setback. All lands in the study area that are subject to the Waukesha County shoreland and floodland regulations, as of April 30, 2000, are shown on Map 30. As further indicated in this map, even though a parcel of land was annexed into the Village of Wales after May 7, 1982, this land was not subject to such County regulations since no shorelands or floodlands were identified on the land. The Village adopted the Waukesha County shoreland and floodland zoning regulations as part of the Village zoning ordinance on June 4, 2001.

Waukesha County also adopted a construction site erosion control ordinance on May 5, 1992, and a stormwater management ordinance on May 28, 1998. These ordinances were combined and are now referred to as the Waukesha County Construction Site Erosion Control and Stormwater Management Ordinance, which applies to the unincorporated areas of the County and certain annexed areas. Based on Section 59.693(10) of the *Wisconsin Statutes*, any lands annexed after May 5, 1992, are subject to the County's construction site erosion control

Map 29

EXISTING ZONING IN THE TOWNS ADJACENT TO THE VILLAGE OF WALES AND WITHIN THE STUDY AREA: 2000



ZONING DISTRICT BOUNDARY

TOWN OF DELAFIELD

A-1	AGRICULTURAL
A-2	RURAL HOME
A-3	SUBURBAN ESTATE
R-1	RESIDENTIAL
M-1	INDUSTRIAL
WF-1	WETLAND-FLOODPLAIN

TOWN OF OTTAWA

A-1	AGRICULTURAL
A-2	RURAL HOME
A-5	MINI-FARM
AD-10	AGRICULTURAL DENSITY-10
Q-1	QUARRYING
C-1	CONSERVANCY
EC	ENVIRONMENTAL CORRIDOR

TOWN OF GENESEE

A-1	AGRICULTURAL
A-2	RURAL HOME
A-3	SUBURBAN ESTATE
AE	EXCULSIVE AGRICULTURAL CONSERVANCY
AB	AGRICULTURAL BUSINESS
R-1	RESIDENTIAL
R-3	RESIDENTIAL
P-1	PUBLIC AND INSTITUTIONAL
B-2	LOCAL BUSINESS
B-3	GENERAL BUSINESS
M-1	LIMITED INDUSTRIAL
M-2	GENERAL INDUSTRIAL
Q-1	QUARRYING
C-1	CONSERVANCY
EC	ENVIRONMENTAL CORRIDOR

EXISITING AGRICULTURAL OVERLAY

TOWN OF SUMMIT

RRE	RURAL ESTATE
WF	WETLAND AND FLOODPLAIN

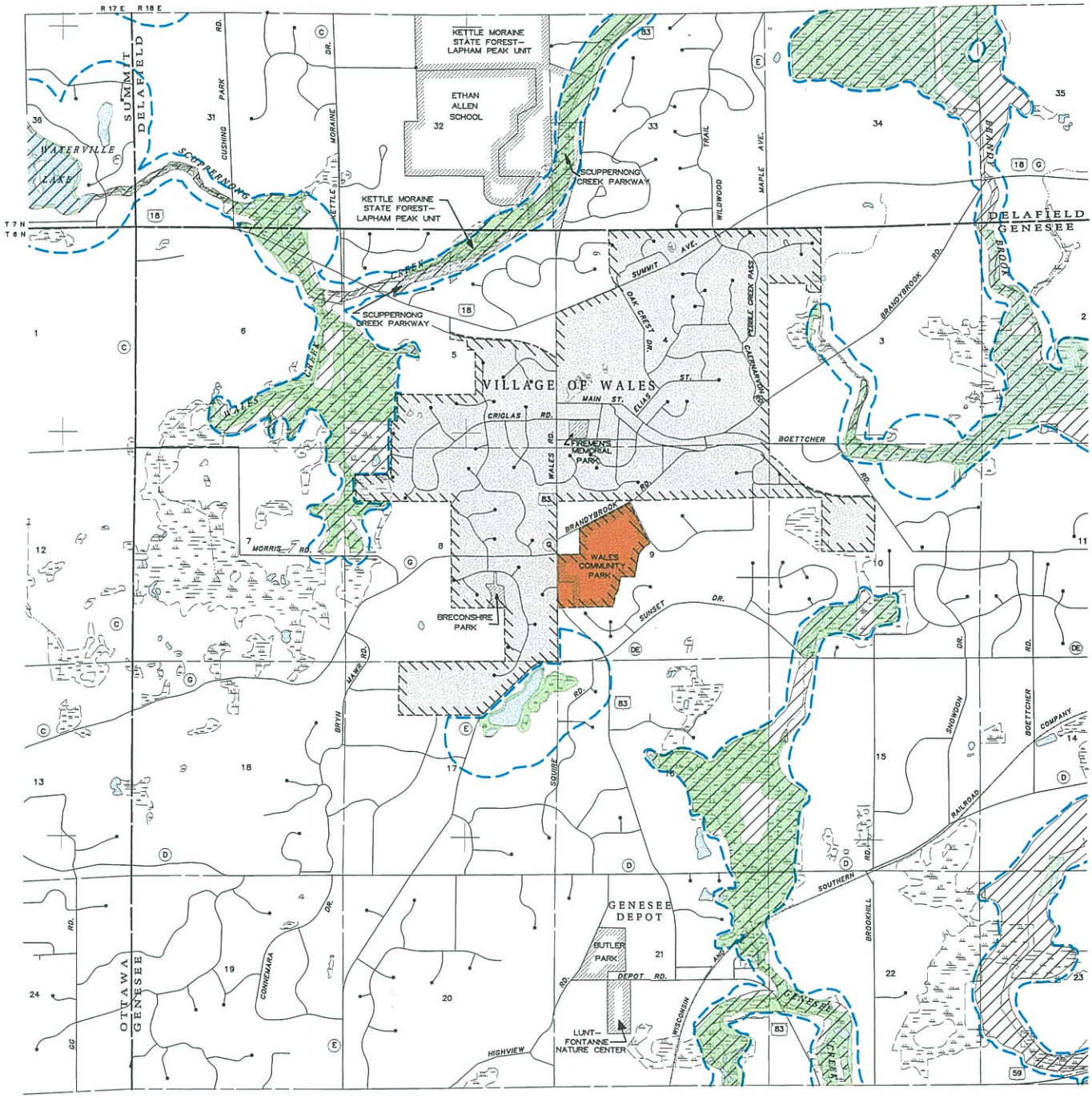
VILLAGE OF WALES

GRAPHIC SCALE

0 2500 5000 FEET

Source: SEWRPC.

AREAS IN THE VILLAGE OF WALES STUDY AREA SUBJECT TO WAUKESHA COUNTY SHORELAND AND FLOODLAND PROTECTION ZONING REGULATIONS: 2000



SHORELAND BOUNDARY

100-YEAR RECURRENCE INTERVAL FLOODPLAIN

SHORELAND-WETLANDS IN UNINCORPORATED AREAS

SURFACE WATER

OTHER WETLANDS

AREAS INCORPORATED BEFORE MAY 8, 1982 AND THEREFORE NOT SUBJECT TO COUNTY SHORELAND AND FLOODLAND REGULATIONS

AREAS INCORPORATED BETWEEN MAY 8, 1982 AND APRIL 30, 2000. NO SHORELANDS OR FLOODLANDS HAVE BEEN IDENTIFIED.

NOTE: SHORELAND-WETLAND BOUNDARIES ARE SUBJECT TO FIELD VERIFICATION.

GRAPHIC SCALE

0 2500 5000 FEET

Source: Waukesha County and SEWRPC.

regulations, and those annexed after May 28, 1998, are subject to the County's stormwater management regulations, as well as the erosion control regulations, unless the annexing city or village in the County has adopted such regulations that are at least as restrictive as the County's regulations. The Ordinance sets forth administrative procedures, performance standards, and enforcement standards. The Ordinance was enacted to preserve and protect the natural resources and quality of waters in the County by reducing the amount of sediment and other pollutants leaving construction sites.

Land Division Regulations

A land division ordinance is a public law that regulates the division of land into smaller parcels. Land division ordinances provide for public oversight of the creation of new parcels and help ensure that new urban development is appropriately located; that lot size minimums specified in zoning ordinances are observed; that adequate rights-of-way for arterial, collector, and land-access streets are appropriately located and dedicated or reserved; that access to arterial streets and highways is limited in order to preserve the traffic-carrying capacity and safety of such facilities; that adequate land for parks, drainageways, and other open spaces is appropriately located and preserved; that street, block, and lot layouts are appropriate; and that adequate public improvements are provided.

Ideally, land division control regulations are a means of implementing or carrying out a community comprehensive plan. As such, land division regulations should coordinate and integrate development with the comprehensive plan, and they are, therefore, properly prepared within the context of such a plan. Since land division is not merely a means of marketing land, but rather the first step in the process of building a community, substantial benefits are derived from sound subdivision regulations. Much of the form and character of a community is determined by the quality of its land divisions and the standards which are built into them. Once land has been divided into blocks and lots, streets established, and utilities installed, the development pattern is permanently established and unlikely to be changed. For generations, the entire community, as well as the individuals who occupy these subdivisions, will be influenced by the quality and character of the subdivision design.

Village of Wales Land Division Ordinance

The Village of Wales land division ordinance, known as the Subdivision and Platting Ordinance, is set forth in Chapter 18 of the Village's Municipal Code. By reference and associated text, the ordinance conforms to the general procedures outlined in Chapter 236 of the *Wisconsin Statutes* for platting lands within the corporate limits of the Village and its extraterritorial plat approval jurisdiction area, that is, areas located outside of the Village's corporate limits but within one and one-half miles of those limits, except when this area may overlap another extraterritorial jurisdiction. When an extraterritorial jurisdiction overlaps with those of another city or village, the jurisdiction in the overlapping area is divided on a line in which all points on the line are equidistant from the boundaries of each municipality concerned so that not more than one municipality exercises such extraterritorial authority over any area. Such a situation exists and could arise because of the proximity of the Village of Wales to the Cities of Delafield, Pewaukee, and Waukesha and the Villages of Dousman and North Prairie. Specifically, the Village of Wales ordinance regulates the creation of "subdivisions," defined as the division of land into five or more parcels of five acres or smaller, at any one time or by successive divisions within a five year period. Such land divisions are created by a subdivision plat. All other land divisions other than "subdivisions" are also regulated by this ordinance, and may be created through the use of a certified survey map.

The Village land division ordinance sets forth design standards and specific data requirements to be provided on all preliminary plats, final plats, and certified survey maps. Importantly, this ordinance requires a subdivider to install subdivision improvements such as utilities, pedestrian crosswalks, street signs, street pavements, and stormwater drainage facilities; to provide easements for certain improvements; and to make provision for park and recreation sites or pay a fee in lieu of site dedication.

Other Land Division Ordinances

The Towns of Delafield, Genesee, Ottawa, and Summit, all located within the Village of Wales study area, have each adopted a land division ordinance. Similar to the Village of Wales, these communities regulate subdivisions

created by a subdivision plat and all other minor land divisions, other than "subdivisions," typically created through use of a certified survey map. Waukesha County also adopted a land division ordinance for unincorporated shoreland areas in the County. Any division of land, except the creation of parcels greater than 20 acres or those created to transfer adjacent lands, is regulated by the Waukesha County Shoreland and Floodland Subdivision Control Ordinance. The requirements of the County's ordinance apply in addition to the requirements of the land division ordinance of the affected Towns. In addition, Waukesha County reviews and has approval authority for all subdivisions in unincorporated areas, and has objecting authority for all subdivisions in incorporated areas. The County is designated by Chapter 236 of the *Wisconsin Statutes* as an objecting authority and may object to plats that are in conflict with adopted County plans for any parks, parkways, expressways, major highways, airports, drainage channels, schools, or other planned public developments. The Waukesha County Parks and Land Use staff regularly comments on all plats in the County.

Similar to the Village of Wales land division ordinance, each of the abovementioned County and local land division ordinances set forth detailed design standards and specific data to be provided on all preliminary plats, final plats, and certified survey maps. These ordinances also require the subdivider to install subdivision improvements prior to final plat approval, although the types of improvements required varies among the civil divisions. The ordinances contain provisions for the dedication of lands for public use or open space purposes, such as parks and recreational facilities, or a fee in lieu of land dedication.

Official Mapping

Official mapping authority, granted to local governments under Section 62.23(6) of the *Wisconsin Statutes*, is an important but historically underutilized plan implementation device. An official map is one of the most effective and efficient devices to manage the problem of reserving land for future public use. The map is intended to identify the location and width of existing and proposed streets, highways, parkways, and drainageways, and the location and extent of railway rights-of-way, public transit facilities, parks, and playgrounds. The adoption of an official map prevents the construction of buildings or structures and their associated improvements on lands designated for future public use. The features shown on an official map may be extended to areas beyond the boundaries of a city or village, but within the extraterritorial plat approval jurisdiction of the municipality.

None of the communities within the study area, including the Village of Wales, have adopted an official map. Waukesha County, however, has adopted a Countywide highway-width map. Under Section 80.64 of the *Wisconsin Statutes*, counties may adopt highway-width maps showing the location and width of proposed new highways and the widths of any highways proposed to be expanded. Such maps serve a function similar to local official maps, but with jurisdiction limited to streets and highways. The Waukesha County Board initially adopted a highway-width map in 1954 and has amended it from time to time. The planned streets and street rights-of-way of the Waukesha County Established Street and Highway Width Map, as it applies to the study area in 2000, are shown on Map 31.

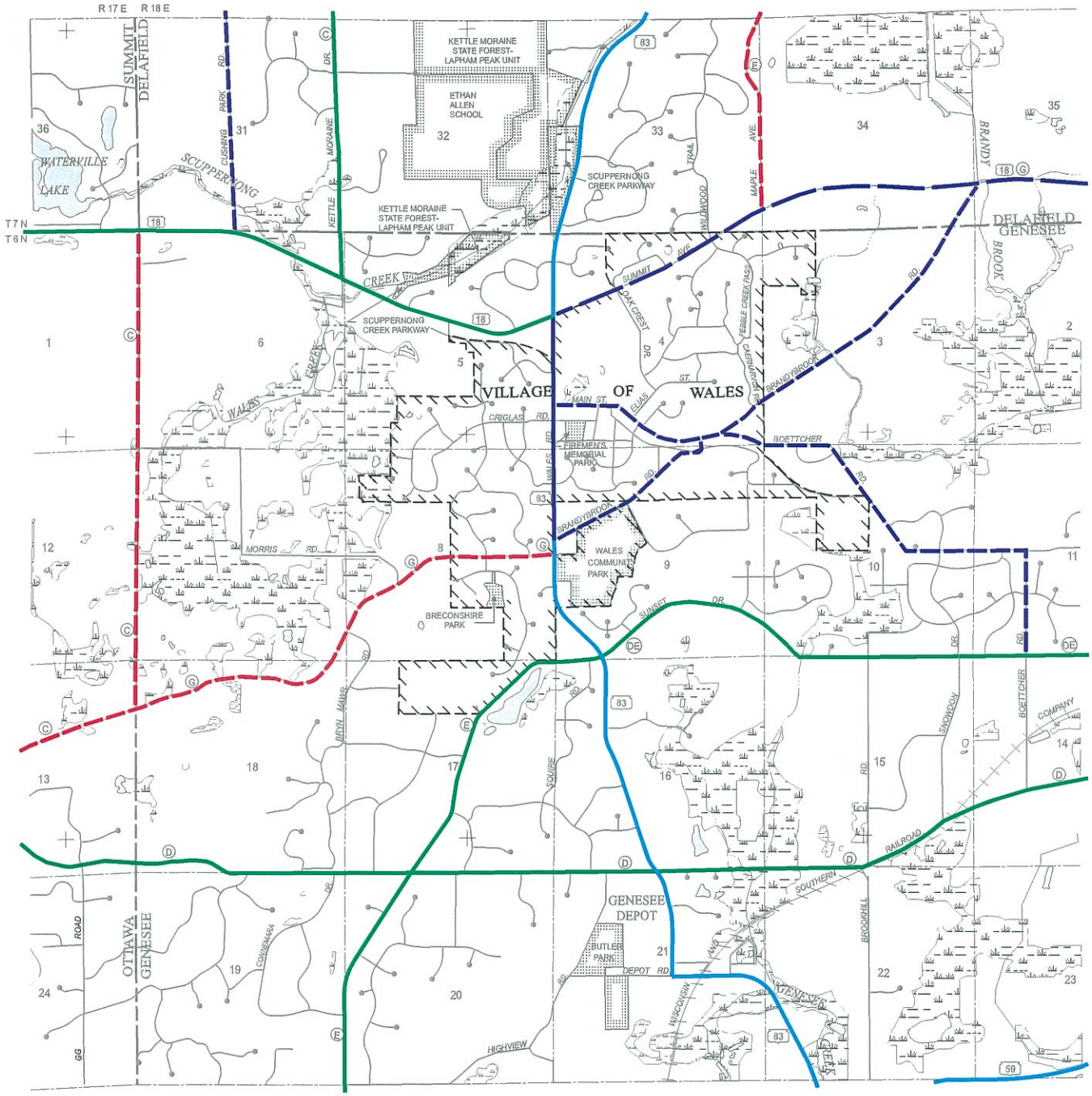
State and Federal Environmental Regulations

Chapter Comm 83 of the *Wisconsin Administrative Code* provides regulation for the protection of environmental health and safety through the proper siting, design, installation, inspection, and maintenance of private sewage systems. In July 2000, several changes to Comm 83 regulations took effect. These changes include the recognition of new technologies, which provide more options for the type of onsite sewage-disposal systems available for use, opening land to development which, in the past, did not meet the criteria for onsite private sewage systems. The new regulations, however, include a provision that allows counties the option to delay up to January 1, 2003, the use of new onsite systems. In addition, some enforcement responsibilities will be shifted from the state level to the county level. As noted earlier in Chapter III, Waukesha County has delayed permitting the use of these new onsite system technologies until 2003.

Chapters NR 110 and Comm 82 of the *Wisconsin Administrative Code* require that the Wisconsin Department of Natural Resources, in its regulation of public sanitary sewers, and the Wisconsin Department of Commerce, in its

Map 31

WAUKESHA COUNTY ESTABLISHED STREET AND HIGHWAY WIDTH MAP AS RELATED TO THE VILLAGE OF WALES STUDY AREA: 2000



ARTERIAL STREET OR HIGHWAY

- 120-FOOT RIGHT-OF-WAY
- 100-FOOT RIGHT-OF-WAY
- 60- OR 66-FOOT RIGHT-OF-WAY (A 66-FOOT RIGHT-OF-WAY IS REQUIRED IN UNINCORPORATED AREAS; IN URBAN AREAS, A 60-FOOT RIGHT-OF-WAY MAY BE APPROPRIATE)
- RIGHT-OF-WAY ESTABLISHED THROUGH PURCHASE

COLLECTOR STREET OR HIGHWAY

- 80-FOOT RIGHT-OF-WAY
- 60-OR 66-FOOT RIGHT-OF-WAY (A 66-FOOT RIGHT-OF-WAY IS REQUIRED IN UNINCORPORATED AREAS; IN URBAN AREAS, A 60-FOOT RIGHT-OF-WAY MAY BE APPROPRIATE)

GRAPHIC SCALE

0 2500 5000 FEET

Source: Waukesha County and SEWRPC.

regulation of private sanitary sewers, make a finding that all proposed sanitary sewer extensions conform with adopted areawide water quality management plans and the sanitary sewer service areas identified in such plans. One of the criteria considered by the State agencies in the review of locally proposed sewer extensions is the conformance with the areawide water quality management plan with regard to the area proposed to be served. The State agency concerned must find that the area proposed to be served is located 1) within an approved sewer service area, and 2) outside of areas involving physical or environmental constraints which, if developed, would have adverse water quality impacts. Areas in the Village of Wales study area having such physical or environmental constraints may include wetlands, shorelands, floodplains, steep slopes, highly erodible soils and other limiting soil types, and groundwater recharge areas, as identified in Chapter III.

Chapter NR 103 of the *Wisconsin Administrative Code* establishes water quality standards for wetlands. These standards, like the more general policies set forth for wetlands protection under Section NR 1.95, are applied by the Wisconsin Department of Natural Resources in all its decisions under existing State authority. In cases where State certification of a proposed wetland modification is denied, the U.S. Army Corps of Engineers permit, discussed below, would also be denied. The water quality standards for wetlands are intended to provide protection to all waters of the State, including wetlands, for all present and potential future uses, such as for public and private water supply; for use by fish and other aquatic life, as well as by wild and domestic animals; for preservation of natural flora and fauna; for domestic and recreational uses; and for agricultural, commercial, industrial and other uses.

Under Section 404 of the Federal Clean Water Act as amended, the U.S. Congress has provided for the regulation of most wetlands in the Nation. That Statute requires the U.S. Army Corps of Engineers, working in cooperation with the U.S. Environmental Protection Agency, to regulate the discharge of dredged and fill materials into waters of the United States, including lakes, rivers, and wetlands. In carrying out this responsibility, the Corps of Engineers identifies waters of the United States, including wetlands, and determines when permits are required for the discharge of dredged and fill materials. Some silviculture, mining, and agricultural activities in water and wetland areas may be exempt from the individual permit requirement; certain minor activities, such as boat ramp construction and shore stabilization, may be undertaken under a pre-approved general, or nationwide, permit. Section 401 of the Act requires that the issuance of such Federal permits must be consistent with State water quality policies and standards.

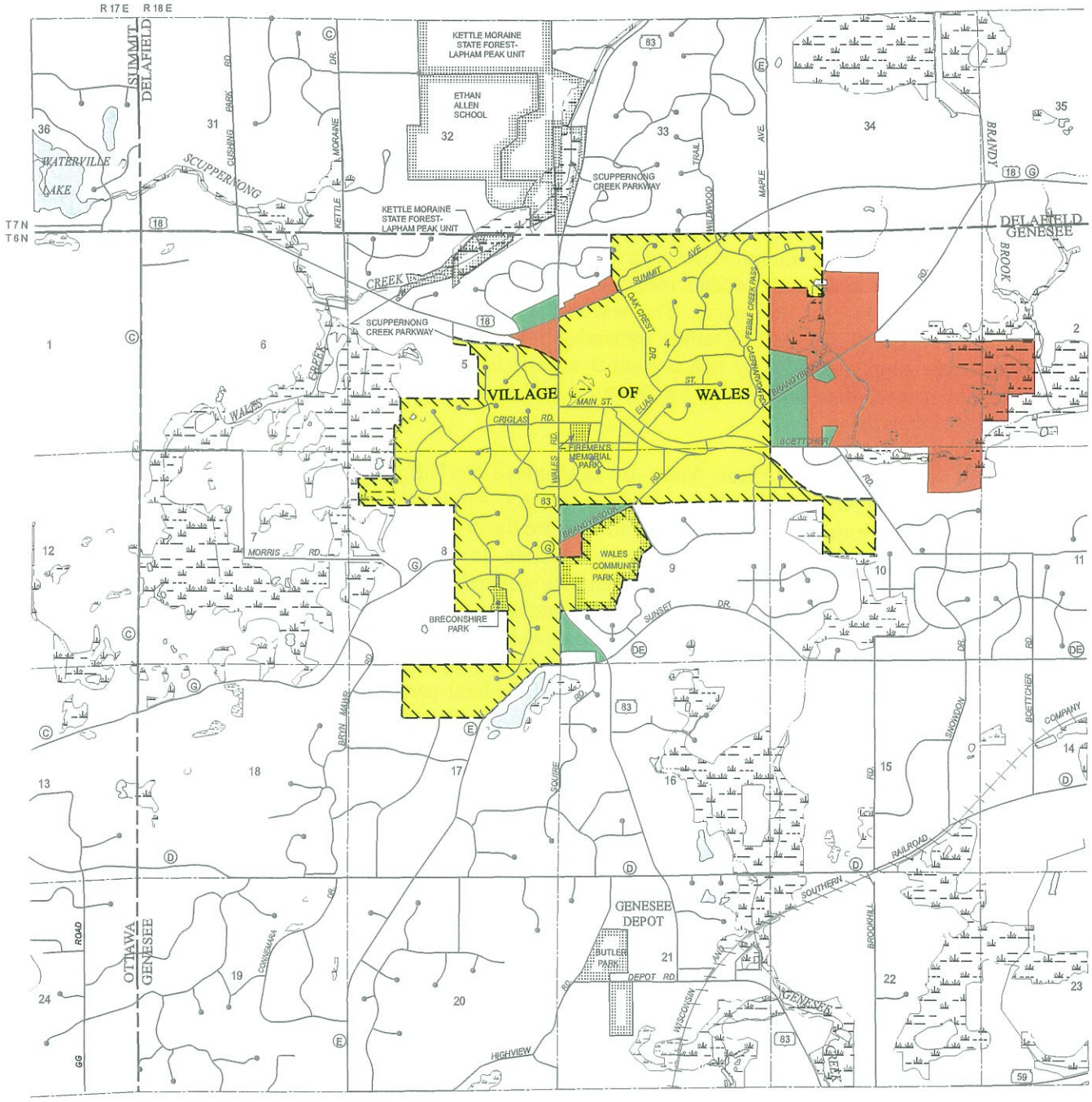
Intergovernmental Boundary Agreements

Pursuant to the provisions of Section 66.0225 of the *Wisconsin Statutes*, the Village of Wales entered into a boundary agreement with the Town of Genesee in September 2000 and with the Town of Delafield in January 2002, which provide a basis for establishing future municipal boundaries among the three communities. The agreements are intended to provide for adequate and logical growth between the Towns and the Village so that each can properly and logically plan for the future needs of their respective community, and to avoid future potential lawsuits related to annexations.

The Village of Wales and the Town of Delafield agreed that the current municipal boundaries existing between the two communities would be fixed in perpetuity, subject only to alteration by the mutual written agreement of the two communities. Accordingly, no lands within the Town may be annexed or attached to the Village unless such detachment is approved by resolution or ordinance of the Town Board. Map 32 identifies those areas of the Town of Genesee that, under the agreement between the Town and Village, would be immediately incorporated into the Village and those areas that would be reserved for future expansion of the Village after the property owner(s) voluntarily request such annexation or upon development of said land. In turn, the Village has agreed not to contest the Town's current incorporation proceeding filed in the Circuit Court of Waukesha County. The Village also agreed to repeal its existing interim extraterritorial zoning ordinance within ninety days following the publication of the stipulation to change the Village boundaries. In addition, the agreement provides for cooperative planning whereby the two communities would establish a joint planning committee to review development proposals that arise within two identified multi-jurisdictional land use planning areas: the approximately 10-acre parcel located northwest of the intersection of USH 18 and STH 83, and a large approximately 423-acre area located east of the Village where a planned residential and golf course development is proposed, referred to as "The Legend at Brandybrook."

Map 32

SUMMARY OF BOUNDARY AGREEMENT BETWEEN THE VILLAGE OF WALES AND THE TOWN OF GENESEE: 2000



Source: Town of Genesee, Village of Wales, and SEWRPC.

SUMMARY

Land development can be guided and shaped in the public interest through planning efforts, the use of good topographic and cadastral maps and other planning data, and sound application of public land use controls. This chapter describes past local and areawide plan documents that relate to the Village of Wales study area; existing topographic and cadastral—real property—maps available for this planning effort; and existing land use regulations and boundary agreements in effect in the study area. The following summarizes the key findings:

- Pertinent recommendations of local, county, and regional plans, as they relate to the Village of Wales study area, have important implications for any local planning effort and include land use, transportation system, bicycle-way system, water quality management, and park and open space plans.

- Topographic and cadastral maps were essential for preparing the master plan for the Village of Wales. Topographic maps at a scale of one inch equals 200 feet, with two-foot contour intervals, were prepared for the Village of Wales and surrounding areas. Cadastral maps were also prepared for the same area which show existing property lines and street and railroad rights-of-way. Both types of maps are available in digital and hardcopy forms.

- Zoning regulations are in effect throughout the entire Village of Wales study area. The Village of Wales Zoning Code regulates all land within the Village of Wales corporate limits. The Towns of Delafield and Summit have also adopted their own zoning ordinances, while lands in the Towns of Genesee and Ottawa are regulated by the Waukesha County Zoning Code.

- The Waukesha County Shoreland and Floodland Protection Ordinance applies to lands in the unincorporated portions of the study area as well as properties annexed into cities and villages after 1982. The Ordinance regulates lands which are located within 1,000 feet of navigable lakes, ponds, and flowages; and within 300 feet of navigable rivers and streams or to the landward side of the 100-year recurrence interval floodplain, whichever is greater.

- The Waukesha County Construction Site Erosion Control and Stormwater Management Ordinance protects the quality of waters in the County by reducing the amount of sediment and other pollutants leaving construction sites during land development and land disturbing activities.

- The division and improvement of land in the Village of Wales study area are regulated by land division ordinances. The Village land division ordinance applies to all land in the Village and within its extraterritorial plat approval jurisdiction. All civil divisions in the study area have an adopted land division ordinance. The ordinances regulate subdivisions created by plats and other minor land divisions created by certified survey maps. Waukesha County has also adopted land division regulations that apply to the unincorporated shoreland and floodland areas in the County. These ordinances set forth requirements for the appropriate design of lots, subdivision access, and such necessary internal improvements as utilities, streets, and stormwater drainage facilities.

- None of the communities within the study area have an official map. Waukesha County, however, has adopted an Established Street and Highway Width Map that identifies planned streets and street rights-of-way within the County. Official maps are intended to reserve land for future public use and open space sites such as streets, drainageways, parks, and parkways within civil divisions as well as the extraterritorial plat approval jurisdiction of cities and villages.

- A series of State and Federal environmental regulatory programs control the use of waters and wetlands and the potential water quality impacts of development. These include Chapters NR 103,

NR 110, Comm 82, and Comm 83 of the *Wisconsin Administrative Code*, and Sections 401 and 404 of the Federal Clean Water Act.

- The Village of Wales has entered into agreements with the Towns of Delafield and Genesee that provide a basis for establishing future municipal boundaries among the three communities and provides for cooperative planning regarding certain areas of mutual interest. The agreements are intended to provide for adequate and logical growth between the Towns and the Village so that each can properly and logically plan for the future needs of their respective community, and to avoid future potential lawsuits related to annexations.

Chapter VI

SURVEY AND OBJECTIVES

Planning is a rational process for formulating and meeting objectives. Therefore, the formulation of objectives is an essential task that must be undertaken before plans can be prepared. As part of the master planning process, a set of planning objectives, along with supporting principles and standards, was formulated by the Village Long-Range Planning Committee based, in part, on the results of a community survey. Design guidelines were also formulated for guiding and evaluating future development in the Village. This chapter presents key findings of the community survey as well as the set of planning objectives and supporting principles and standards which were used as a guide in the preparation of the plan.

COMMUNITY SURVEY

The public participation process undertaken as part of the Village planning effort included a community survey. Conducted in early 2000, the survey provided Village residents and business operators an opportunity to share their views regarding various land use and development issues affecting the Village. The survey results are intended to provide the Village Long-Range Planning Committee with additional insight into the preferences of local residents and property owners. With this insight, the ability of the Committee to make planning decisions likely to be supported by Village residents and businesses would be enhanced. Prepared and administered by the University of Wisconsin-Extension, the survey consisted of a return mail questionnaire sent to all households and nonresident property owners in the Village. In total, 928 questionnaires were distributed and 434 were returned, representing a relatively high return rate of about 47 percent.

The survey findings indicate a preference to preserve the small village character and its remaining natural resources while growing somewhat larger in size with a few additional quality of life services, but at the present rate or a slightly slower rate than in the past 10 years. The majority of participants support single-family residential development and housing for the elderly, but do not support new two- and multi-family residential development. In general, most participants do not support new commercial or industrial development, but indicated, if commercial development occurs, it should be concentrated, such as at the intersection of USH 18 and STH 83, rather than being spread out along the entire length of Village highways. For the Village historic center, respondents supported small professional offices or specialty shops that would not need exposure to nor generate high volumes of automobile traffic. Traffic volume is a significant concern to most respondents, not only in the historic center, but also throughout the Village in general. The majority of respondents also support additional parks and recreational facilities, and a few walkways and bikeways connecting residents to not only key activity centers, such as schools and playfields, but also the Glacial Drumlin Trail and Lapham Peak Park. Further improvements to the Historic Village Center and along Main Street were favored by most residents and business operators, as were the establishment of landscape and architectural design standards for all new intense urban

developments, such as multi-family residential, business, and institutional developments. The survey results are summarized in Appendix B and documented in a separate report titled, *Village of Wales Community Survey Report*, December 2000.

OBJECTIVES, PRINCIPLES, STANDARDS, AND DESIGN GUIDELINES

The planning process included the formulation of a set of objectives intended to express the long-term planning goals of the Village of Wales. While considering the community survey results, the following nine major planning objectives, accompanied by principles and standards which support and help explain the objectives, were formulated by the Village Long-Range Planning Committee to guide the preparation of the master plan. The standards perform a particularly important function in the plan design process since they may be used as a basis to help determine future community land use needs. In addition, design guidelines, as presented in Appendix C, were established for guiding and evaluating future urban development and redevelopment in the Village of Wales, including the Historic Village Center shown on Map 19 in Chapter IV. The objectives and supporting principles, standards, and design guidelines should not be used as absolute decision rules for identifying land use patterns and facility needs, since the standards and design guidelines, particularly, should be applied with judgment in more detailed development planning and engineering studies which will be needed during plan implementation. Each Village objective, together with its supporting principles and standards, follows.

OBJECTIVE NO. 1 - LAND USE ALLOCATION

A balanced allocation of space to the various land use categories which will meet the social, physical, recreation, and economic needs of the Wales area.

Principle
The planned supply of land set aside for any given use should approximate the known and anticipated demand for that use.

Standard
The estimated amount of land set aside for accommodating forecast growth in the Village of Wales planned urban service area should be based upon Table 26.

OBJECTIVE NO. 2 - LAND USE SPATIAL ALLOCATION

A spatial distribution of various land uses which will result in a compatible and efficient arrangement of land uses.

Principle
The proper location and extent of commercial, educational, transportation, and recreational facilities are important determinants of the quality of urban life in the Wales area and should be designed to meet the needs of the resident population.

Transportation and Utilities Principle
The transportation and public utility facilities and the land use pattern which these facilities serve and support are mutually interdependent in that the land use pattern determines the demand for, and loadings upon, transportation and utility facilities; these facilities in turn, are essential to, and form a basic framework for, land use development.

Table 26

URBAN LAND USE STANDARDS FOR THE VILLAGE OF WALES PLANNED URBAN SERVICE AREA

Land Use Category	Development Standard (gross area)[a]
Residential	
Rural-Density (at least 5.0 acres of net residential area[b] per dwelling unit)	588 or more acres per 100 dwelling units
Suburban-Density (1.5- to 4.9-acre lots)	180 to 587 acres per 100 dwelling units
Low-Density (30,000- to 65,339-square-foot lots)	83 to 179 acres per 100 dwelling units
Commercial	6 acres per 100 retail trade employees
Industrial	12[c] acres per 100 industrial employees
Governmental and Institutional[d]	
Public Elementary School	10 acres plus one acre per 100 students
Public Middle School	20 acres plus one acre per 100 students
Public High School	30 acres plus one acre per 100 students
Church	2.5 acres per 1,000 persons
Other[e]	4.5 acres per 1,000 persons
Public Outdoor Recreation	
Regional and Multi-Community	In accordance with the adopted Waukesha County Park and Open Space Plan
Community Park and Middle or High School Sites Combined[f]	3.1 acres per 1,000 persons
Neighborhood Park and Elementary School Sites Combined[f]	3.3 acres per 1,000 persons

[a]Gross area includes associated street rights-of-way and off-street parking for each land use category.

[b]Net residential area includes only those areas occupied by housing units and associated buildings plus required yards and open spaces. It does not include associated street or utility areas.

[c]Assuming a net land-to-building ratio of 7:1. If the net land-to-building ratio is 5:1, then nine acres per 100 employees should be used. If the net land-to-building ratio is 3:1, then six acres per 100 employees should be used.

[d]The overall standard for all governmental and institutional uses, including schools, churches, and other governmental and institutional uses, is about 12 acres per 1,000 persons.

[e]This category includes hospitals, municipal buildings, libraries, post offices, police and fire stations, and other related governmental and institutional uses.

[f]School sites should be associated with a park site. Natural areas should also be incorporated into the design of a park site; however, such areas as steep slopes, floodlands, drainageways, wetlands, and woodlands should not be included when determining whether acreage standards have been met for accommodating certain recreational facilities. See Table 28 for more details.

Source: SEWRPC.

Standards

1. Urban development should be located to make maximum use of the existing transportation and utility systems.

2. All lands developed or proposed to be developed for urban uses should be located in areas readily serviceable by extensions of the existing public sanitary sewerage system or planned to be served by such a system, and, preferably, within the gravity-drainage area of the system.

3. All lands developed or proposed to be developed for urban uses should be located in areas readily serviceable by extensions of the existing public water-supply system or planned to be served by such a system.

4. Adequate stormwater-management facilities should be provided for all development.

Urban Uses Principle
The proper location of urban uses to land can avoid or minimize hazards and dangers to health, safety, and welfare and can maximize amenity and convenience in terms of accessibility to supporting land uses.

Standards

1. Facilities such as shopping centers, parks, schools, and other services should be situated so as to serve the largest population possible that the facilities are intended to serve. Sites for shopping, education, employment, and transit facilities to serve neighborhoods and the community should be provided, in part, in accordance with the standards set forth in Table 27. This table also provides walking and bicycling travel distance standards that should be met for neighborhood and community services. Sites for outdoor recreation facilities to serve neighborhoods and the community should be provided in accordance with the standards set forth in Table 28.

2. Urban residential uses should be located in well-planned neighborhood units served, or planned to be served, by centralized public sanitary sewerage and water supply facilities and contain, within reasonable walking and biking distances, necessary supporting local services such as parks, schools, and shopping areas. They should have reasonable access through the appropriate component of the transportation system to employment centers, community and major shopping centers, cultural and governmental centers, and secondary schools and higher educational facilities.

3. Suburban and rural residential uses should have reasonable access through the appropriate component of the transportation system to local service uses; employment, commercial, cultural, and govern-mental centers; and primary and secondary educational facilities.

4. Retail and service commercial uses should be located in planned commercial centers. Development of new commercial strip areas, that is, long rows of contiguous individual parcels each with nonshared, direct street access along arterial streets, should be avoided. Large retail-commercial development on each corner of an intersection should also be avoided. Avoidance of such a four-corner, intensive commercial development arrangement will help prevent the creation of traffic hazards, such as conflicts with turning movements and conflicts between pedestrian and vehicular traffic.

5. New industrial development should be located in planned industrial centers.

OBJECTIVE NO. 3 – HISTORIC VILLAGE CENTER AND EXISTING BUSINESS AREA VITALITY

To maintain the vitality of the Historic Village Center and existing business areas.

Principle
The Historic Village Center is a vital civic and cultural center for the Wales area, and the continual enhancement and proper care of the Center and existing commercial and industrial areas will help to ensure a viable, long-term Center and business environment.

Historic Village Center Principle
A historic Village Center should function as an important focal point for the Wales area that is in convenient proximity to residential areas, where there are interconnecting streets, sidewalks, and bicycle facilities to ensure safe and ready access.

Standards

1. The Historic Village Center should be established as a compact location of residential uses mixed with some compatible, small office and professional service-type businesses and specialty stores that are in keeping with the predominantly residential architectural character of the Center. Housing for the elderly could also be accommodated in or near the vibrant Center due to convenient proximity to services, active recreational opportunities, and passive enjoyment of daily activities in the Center.

2. The Village should continue to capitalize on and improve development oriented towards the Glacial Drumlin Trail as it extends through, and is an integral part of, the Historic Village Center.

Table 27

SITE AREA, SERVICE RADIUS, AND TRAVEL DISTANCE STANDARDS FOR COMMUNITY FACILITIES IN THE VILLAGE OF WALES PLANNED URBAN SERVICE AREA

Facility Type[a]	Service Capacity	Required Site Area (gross acres)	Service Radius: Medium-Density Neighborhood (miles)	Walking Distances[b]		Biking Distances[b] (miles)	
				Optimum	Maximum	Optimum	Maximum
Commercial							
Retail and Service Centers							
Neighborhood[c]	4,000 to 10,000 persons	5-15	1.25	0.25	0.50	0.75	1.25
Community[d]	10,001 to 75,000 persons	15-60	1.75	0.50	0.75	1.00	1.75
Highway-Oriented Commercial Development	15,000 vehicles or more per day[e]	--	--	--	--	--	--
Community Industrial Development	300 or more employees	Minimum 20	--	1.00	1.50	3.00	5.00
Local Transit Stops	--	--	0.25	0.25	0.50	0.75	1.00
Public Education Facilities							
Elementary School (Grades K-5)	350 to 500 students	13.5-15[f,g]	0.75[j]	0.25	0.50	0.75	1.00
Middle School (Grades 6-8)	750 to 900 students	27.5-29[f,h]	1.00[j]	0.50	0.75	1.00	1.50
Senior High School (Grades 9-12)	1,000 to 1,500 students	40-45[f,i]	1.50[j]	0.75	1.00	1.50	2.00
Public Outdoor Recreational Facilities							
Sub-Neighborhood	--[k]	--[k]	--[k]	--[k]	--[k]	--[k]	--[k]
Neighborhood	4,000 to 8,000 persons	5-24[l]	0.75[m]	0.25	0.50	0.75	1.00
Community	Minimum 7,500 persons[n]	25-99	2.00	0.50	1.00	1.50	2.00
Multi-Community	--	100-249	4.00	--	--	3.00	5.00
Major	--	250 or more	10.00	--	--	3.00	5.00

[a] *Service radius standards for fire stations are presented under Objective No. 7 of this Chapter.*

[b] *One-way distances from the farthest dwelling unit to the facility.*

[c] *A neighborhood shopping center is defined as concentrations of stores including a grocery store or supermarket as the anchor and other retail stores and services such as a drugstore, variety store, beauty parlor, laundromat, or bank that meet the day-to-day needs of neighborhood residents. Neighborhood shopping centers should not deal in such goods as clothing, furniture, and appliances.*

[d] *A community shopping center usually contains at least one supermarket and either a junior department store, discount store, or similar major tenant in addition to other retail stores and services found in neighborhood shopping centers. The need for a neighborhood shopping center can be met by a community shopping center.*

[e] *Indicates minimum average weekday traffic volume required on an abutting freeway, highway, or arterial street.*

[f] *Includes both land for the school building and for associated facilities such as parking, loading, and recreation facilities.*

[g] *Elementary school site area is based upon the standard of 10 acres, plus one acre for each 100 students.*

[h] *Middle school site area is based upon the standard of 20 acres, plus one acre for each 100 students.*

[i] *High school site area is based upon the standard of 30 acres, plus one acre for each 100 students.*

[j] *In general, the Kettle Moraine School District provides busing services for students from kindergarten through grade 12 located more than one-half mile from the end of their private driveway to a bus stop or school, but the District may only provide such services for high school students located more than two miles from their school. Nevertheless, exceptions may be made due to the presence of hazardous conditions.*

[k] *To be determined on an individual sub-neighborhood basis for those sub-neighborhoods that are not an integral part of a specific neighborhood area due to distance or physical barriers such as separation by a major highway or waterway. Such parks should contain about three to five acres of area to accommodate at least a playground and a combined playfield/softball diamond facility.*

[l] *Neighborhood park sites not associated with a school site should contain between 10 to 15 acres in area per park site, depending on the types of outdoor recreation facilities needed to serve the neighborhood residents.*

[m] *A service radius of 1.0 mile should be used for low-density residential areas.*

[n] *If a municipal population is less than 7,500 persons, then at least one community park should be provided to serve residents of the municipality.*

Source: SEWRPC.

Table 28

STANDARDS FOR PUBLICLY-OWNED OUTDOOR RECREATION SITES FOR THE VILLAGE OF WALES PLANNED URBAN SERVICE AREA

Site Type	Size (gross acres)	Parks			Schools[a]		
		Minimum per Capita Requirement (acres per 1,000 persons)[b]	Typical Facilities	Service Radius (miles)[c]	Minimum per Capita Requirements (acres per 1,000 persons)[b]	Typical Facilities	Service Radius (miles)
Community	25-99	2.2	Swimming pool or beach, nature study area, picnic areas, soccer and other playfields, baseball diamonds, softball diamonds, tennis courts, passive activity area[d]	2.0[e]	0.9	Soccer and other playfields, baseball diamonds, softball diamonds, tennis courts	0.5-1.0
Neighborhood[f]	Less than 25	1.7	Picnic areas, softball diamonds, tennis courts, playground, soccer and other playfields, basketball goals, ice skating rink, passive activity area[d]	0.5-1.0[g]	1.6	Soccer and other playfields, playground, softball diamonds, tennis courts, basketball goals	0.5-1.0

[a] *In urban areas, the facilities commonly found at school recreation sites often provide a substitute for facilities usually found in parks. Indeed, recreation lands at the neighborhood level are most appropriately provided through a joint community school district venture with the recreational facilities and space being located on one site, available to serve the recreation demands of both the student and the resident neighborhood population.*

[b] *The per capita acreage standards for neighborhood and community recreation sites are intended to be applied in a combined fashion. In this respect, a total of at least 6.4 acres of land should be provided at neighborhood or community recreation sites for each thousand urban area residents. Of the 6.4 acres, 3.9 acres should be provided at neighborhood or community parks, and 2.5 acres should be provided at school recreation sites or, if not distributed to school sites, then added to neighborhood or community parks.*

[c] *In the application of these service radius standards, the need for a neighborhood park can be met by a community, multi-community, or major park. The need for a community park can be met by a multi-community or major park.*

[d] *A passive activity area is defined as an area that provides an opportunity for less athletic recreational pursuits such as pleasure walking, relaxation, and informal picnicking. Such areas are generally in all parks and consist of a landscaped area with mowed lawns, shade trees, benches, and picnic tables.*

[e] *This standard applies to urban areas with a resident population of at least 7,500 persons. If a municipal population is less than 7,500 persons, then at least one community park should be provided to serve residents of the municipality.*

[f] *The acreage standards are for accommodating only outdoor recreational facilities typically located in a neighborhood, exclusive of the natural areas and the area required for school building site and associated parking and loading facilities. Natural areas should be incorporated into the design of a park site; however, acreages of areas with steep slopes, poor soils, floodlands, drainageways, wetlands, and woodlands should be considered as additions to the park-school acreage standards.*

[g] *A service radius of 0.5 mile should be used in high-density residential areas, 0.75 mile in medium-density residential areas, and 1.0 mile in low-density residential areas.*

Source: SEWRPC.

3. The Historic Village Center should be established as a pedestrian- and bicycle-friendly environment by providing pedestrian and bicycle facilities in certain locations along with attractive streetscape amenities, such as benches, street trees, ornate fences or walls, and decorative streetlights, to foster a more readily identifiable historic center with a unique visual experience that would project a positive image of the Village.

Existing Business Use Viability Principle
The preventative maintenance, rehabilitation, and redevelopment of existing commercial and industrial areas are important to the economic vitality of the Village.

Standards

1. Buildings and accessory features, including landscaping and parking lots, which have only minor deterioration should be upgraded and maintained in sound condition to the maximum extent possible.

2. Buildings and accessory facilities which have significantly deteriorated should be repaired and rehabilitated and measures should be taken to eliminate or minimize future deterioration.

3. Buildings and accessory facilities which have deteriorated to the point of becoming a health or safety hazard for occupants and which are not economically feasible to rehabilitate should be considered for replacement with new development.

OBJECTIVE NO. 4 - NATURAL RESOURCES PROTECTION

Encourage the protection and wise use of the natural resources and agricultural lands in the study area. The preservation of sufficient high-quality open space lands for protection of the underlying and sustaining natural resource base will enhance the social and economic well-being and environmental quality of the Wales area.

Principle
The proper allocation of land uses can assist in maintaining an ecological balance between human activities and the natural environment. Such ecological balance and natural beauty are important determinants of a community's ability to provide a pleasant and habitable environment for all forms of life. Preservation of the most significant aspects of the natural resource base, that is, primary environmental corridors and significant agricultural lands, further contributes to the maintenance of the ecological balance, natural beauty, and economic well-being of the Village and environs.

Soils Principle
The proper relation of urban and rural land use development to soils can serve to avoid costly environmental and developmental problems, aid in the establishment of better settlement patterns, and promote the wise use of an irreplaceable resource.

Standards

1. Unsewered developments should not be located in areas covered by soils identified in the detailed operational soil survey as unsuitable for development with onsite sewage-disposal systems.

2. Sewered developments or developments planned to be sewered should not be located in areas covered by soils having severe development limitations, such as high or fluctuating water tables, slow permeability rates, erodibility on slopes, low bearing capacity, high shrink-swell potential, and frost heave. When development in such areas cannot be avoided, careful attention should be given in the design of the development to properly overcome these limitations.

3. Undeveloped areas surrounding the Village that are covered by the most productive soils for agricultural use, which are those designated by the U.S. Natural Resources Conservation Service as comprising agricultural soil capability Classes I and II, and which are not required to meet the land use needs of the forecast design year resident population and economic activity levels for the Wales area, should be preserved for agricultural use.

4. The location of nonfarm residential development in productive agricultural areas surrounding the Village should be discouraged. If permitted, development should be limited to rural densities of five acres or greater per dwelling unit, provided the locations can accommodate an acceptable private well system and are covered by soils suitable for the use of onsite sewage-disposal systems. Such development should utilize open space and conservation design concepts.

Lakes and Streams Principle
Lakes and streams and their associated floodplains and shorelands contribute to the community's environmental health in a number of ways. They add to the atmospheric water supply through evaporation; provide a suitable environment for desirable and sometimes unique plant and animal life; provide the population with opportunities for certain scientific, cultural, and educational pursuits; constitute prime recreational areas; provide a desirable aesthetic setting for certain types of land use development; serve to store and convey flood waters; and provide a source of water.

Standards

1. Floodplains should not be allocated to any urban development which would cause or be subject to flood damage.

2. The floodwater storage capacity of natural floodplains should not be reduced by development.

3. The flow capacity of perennial stream channels and associated floodplains should not be reduced below existing conditions.

4. Adequate stormwater drainage facilities should be provided for all development.

Wetlands Principle
Wetlands perform a variety of important functions that make them invaluable resources. These functions include: supporting a wide variety of desirable and sometimes unique plant and animal life; assisting in the stabilization of lake levels and streamflows; trapping and storing plant nutrients in runoff, thus reducing the rate of enrichment of surface waters and obnoxious weed and algae growth; contributing to the atmospheric oxygen supply; contributing to the atmospheric water supply; reducing stormwater runoff by providing area for floodwater impoundment and storage; trapping soil particles suspended in runoff and thus reducing stream sedimentation; and providing the population with opportunities for certain scientific, educational, and recreational pursuits.

Standard
Wetland areas adjacent to streams or lakes and wetlands within areas having special wildlife and other natural values should not be drained or filled and should not be allocated to any urban development except limited recreational use. To the extent practicable, areas immediately adjacent to and surrounding wetlands should be kept as a buffer with permanently vegetated open space uses within at least 15 feet of said wetlands.

Woodlands Principle
Woodlands assist in maintaining unique natural relationships between plants and animals; reduce stormwater runoff; contribute to the atmospheric oxygen supply; contribute to the atmospheric water supply through transpiration; aid in reducing soil erosion and stream sedimentation; provide the resource base for the forest product industries; provide the population with opportunities for certain scientific, educational, and recreational pursuits; and provide a desirable aesthetic setting for certain types of land use development.

Standard
Woodlands having an area of five acres or more should not be allocated to urban development except for limited recreational uses. When urban development does occur in such areas, the impact upon the woodland areas should be minimized by practicing sound conservation design principles.

Wildlife Principle
Wildlife, when provided with a suitable habitat, will supply the population with opportunities for certain scientific, educational, and recreational pursuits; comprises an integral component of the life systems which are vital to beneficial natural processes, including the control of harmful insects and other noxious pests and the promotion of plant pollination; provides food sources; offers an economic resource for the recreation industries; and serves as an indication of environmental health.

Standards

1. The most suitable habitat for wildlife, that is, the area wherein fish and game can best be fed, sheltered, and reproduced, is a natural habitat. Since the natural habitat for fish and game can best be achieved by preserving or maintaining in a wholesome state other resources such as soil, air, water, wetlands, and woodlands, the standards for each of these other resources, if met, would ensure the preservation of a suitable wildlife habitat and population.

2. Wildlife populations should be maintained in balance with the holding capacity of the land.

Natural Areas and Critical Species Habitats Principle

Natural areas and critical species habitats are important in a number of ways including economically, insofar as they support advances in agriculture and medicine; functionally, insofar as they enhance surface-water and groundwater quality, minimize erosion, and enhance air quality; educationally; recreationally; aesthetically; scientifically; and biologically, insofar as they maintain biological and genetic diversity. In a less tangible but equally important way, natural areas and critical species habitats contribute to mental well-being and to the overall quality of human life.

Standard

The remaining natural areas and critical species habitat areas should be preserved.

Environmental Corridor and Isolated Natural Resource Area Principle

The primary and secondary environmental corridors and isolated natural resource areas are a composite of the best individual elements of the natural resource base, including lakes, rivers, and streams and their associated floodplains, wetlands, woodlands, wildlife habitat areas; rugged terrain consisting of slopes 12 percent or greater; wet, poorly drained or organic soils; and significant geological formations. By protecting these elements of the natural resource base, flood damage can be reduced, soil erosion abated, water supplies protected, air cleansed, wildlife population enhanced, and continued opportunities provided for scientific, educational, and recreational pursuits.

Standards

1. All remaining undeveloped lands within designated primary environmental corridors[1] should be preserved in essentially natural, open use.

2. All remaining undeveloped lands within the designated secondary environmental corridors[2] and isolated natural resource areas[3] should be considered for preservation as development proceeds and be incorporated, as appropriate, for use as drainageways, floodwater detention areas, and parks.

OBJECTIVE NO. 5 - RECREATION

To provide an integrated system of public outdoor recreation sites and related open space areas that will provide the residents of the Wales area with adequate opportunities to participate in a wide range of outdoor recreation activities.

Principle

The provision of outdoor recreation sites and related open space areas contributes to the attainment and maintenance of physical and mental health by providing opportunities to participate in a wide range of activities. An integrated park and related open space system properly related to the natural resource base, such as the existing surface water network, can generate the dual benefits of satisfying recreational demands in an appropriate setting and protecting and preserving valuable natural resource amenities. Finally, an integrated system of outdoor recreation sites and

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[1] *Primary environmental corridors are, by definition, at least two miles in length, 400 acres in area, and 200 feet in width.*

[2] *Secondary environmental corridors are at least one mile in length and 100 acres in area; however, such corridors that link or serve to connect primary environmental corridor segments, particularly when the secondary corridors are related to surface drainage, have no minimum area or length criteria.*

[3] *Isolated natural resource areas are at least five acres in area and 200 feet wide. Such areas consist primarily of isolated wetland and woodland areas which have been separated physically from the environmental corridor network by intensive urban or agricultural land uses.*

related open space areas can contribute to the orderly growth of the Wales area by lending form and structure to urban development patterns.

Public Outdoor Recreation Sites and Facilities Principle
Public, general-use, outdoor recreation sites promote the maintenance of proper physical and mental health both by providing opportunities to participate in such athletic recreational activities as baseball, swimming, tennis, and ice-skating, activities that facilitate the maintenance of proper physical health because of the exercise involved, as well as opportunities to participate in such less athletic activities as pleasure walking, picnicking, or just rest and reflection. These activities tend to reduce everyday tensions and anxieties and thereby help maintain physical and mental well-being. Well designed and properly located public general-use outdoor recreation sites also provide a sense of community, bringing people together for social and cultural as well as recreational activities, and thus contribute to the desirability and stability of residential neighborhoods and of the communities in which such facilities are provided.

Standard
Local governments should provide recreation sites sufficient in size and number to meet the recreation demands of the resident population. Such sites should contain the natural resource or human-made amenities appropriate to the recreational activities to be accommodated therein and be spatially distributed in a manner which provides safe and ready access by the resident population. To achieve this standard, the site requirements indicated in Table 28, as well as the service radius and travel distance standards established in Table 27, should be met.

Recreation-Related Open Space Principle
Effective satisfaction of recreation demands within the Region cannot be accomplished solely by providing general-use outdoor recreation sites. Certain recreational pursuits, such as hiking, biking, in-line skating, and cross-country skiing are best provided through a system of recreation corridors located on or adjacent to linear resource-oriented open space lands. Resource-oriented outdoor recreational activities rely on natural resource amenities for their very existence or are significantly enhanced by the presence of natural features. A well-designed system of recreation corridors offered as an integral part of linear open space lands also can serve to connect existing and proposed public parks, thus forming a truly integrated park and recreation-related open space system. Such open space lands, in addition, satisfy the human need for natural surroundings, serve to protect the natural resource base, and ensure that many scenic areas and areas of natural, cultural, or historic interest assume their proper place as form determinants for both existing and future land use patterns.

Standards
The public sector should provide sufficient open space lands to accommodate a system of resource-oriented recreation corridors to meet the resident demand for trail-oriented recreational activities. To fulfill these requirements, the following standards should be met:

1. Resource-oriented recreation corridors should maximize use of environmental corridors, while protecting environmentally sensitive resources, for trail-oriented recreation activities; outdoor recreation facilities provided at existing public park sites; and existing recreational trail facilities. Major recreation corridors are identified in the Waukesha County Park and Open Space Plan.

2. The maximum vehicular travel distance to major recreation corridors should be five miles in urban areas and 10 miles in rural areas. Local recreation corridors should be conveniently accessible to residents in neighborhood units. These corridors should also function as a greenway system that interconnects local parks, and that ultimately connects to a major recreation corridor.

3. A minimum of 0.16 linear mile of recreation-related open space consisting of linear major recreation corridors should be provided for each 1,000 persons in the Region, including those in the Village of Wales study area. No minimum size requirements are necessary for creating linear recreation corridors; however, a width of at least 200 feet wide is recommended to the extent practicable. There is no minimum length requirement for the provision of local recreation corridors since such corridors should be provided whenever possible.

OBJECTIVE NO. 6 – TRANSPORTATION SYSTEM

To provide an integrated transportation system with a high aesthetic quality which, through its location, capacity, and design, will effectively serve travel demand generated by the existing and proposed land uses.

Principle
An integrated transportation system connects various land use activities in neighborhoods, communities, counties, and the Region, thereby providing the accessibility needed to support these activities. As a major feature of a community, transportation facilities should possess a high aesthetic quality with proper visual relation to the land- and cityscape to help preserve the beauty of the physical environment, which is conducive to the mental health and well-being of people.

Standards

1. Arterial streets and highways and supporting collector and minor land-access streets should provide access not only to all land presently devoted to urban use but also to land planned for such use. All streets and highways in the Village of Wales planned urban service area should be placed into one of the following functional classifications:

   Minor Land-Access Streets
   This subsystem provides access to and from individual building sites.

   Collector Streets
   This subsystem collects traffic from urban uses abutting minor land-access streets and conveys it to arterial streets and/or activity centers.

   Arterial Streets
   This subsystem provides for the expeditious movement of through traffic into, out of, and within the community. Where possible, arterial streets should not be located through existing or planned residential neighborhoods.

2. Streets and highways in the Village of Wales planned urban service area should be improved to cross-sections that are similar to the Village of Wales's preferred cross-sections shown in Figure C-1 in the street design guidelines section of Appendix C.

3. The Village should support a regional transportation system plan which includes a mass transit element for the greater Milwaukee area.

4. Off-street parking and loading facilities should be located near the land uses which they are intended to serve.

5. Bicycle and pedestrian facilities should be provided as part of an overall transportation system to reduce air pollution, reduce energy consumption, encourage outdoor recreational pursuits, improve public health, reduce transportation cost, and provide for convenient travel between residential areas and shopping centers, schools, parks, and transit facilities. A community bicycle and pedestrian facilities plan should be based, in part, on the planning and design standards established for such facilities in SEWRPC Planning Report No. 43, *A Regional Bicycle and Pedestrian Facilities System Plan for Southeastern Wisconsin: 2010*, December 1994. Bikeways and pedestrian ways should:

   a. Be provided to connect residential areas with major activity centers and places of employment located within reasonable walking and biking distances of such areas, as indicated in Table 27.

   b. Bicycle parking and storage facilities should be provided at all major activity centers.

   c. The bikeway system plan should be detailed in the Village of Wales park and transportation system plans.

6. Transportation facilities have a significant impact on the visual character of a community and, therefore, should meet the following standards:

   a. Transportation facility construction plans should be developed using sound geometric, structural, and landscape design standards which consider the aesthetic quality of the transportation facilities and the areas through which they pass.

   b. Transportation facilities should be so located as to avoid or minimize disturbance of visually pleasing buildings, structures, historic sites, and natural features and to enhance, and avoid interference with, vistas to such features.

OBJECTIVE NO. 7 - FIRE PROTECTION

To provide facilities necessary to maintain high-quality fire protection throughout the planned urban service area.

Principle
The adequacy of fire protection in the planned urban service area is dependent upon the relationship between the distribution of urban land uses and the location of facilities available to serve those urban uses.

Standards

1. Fire stations and equipment should be based, in part, on the fire protection service guidelines provided in the most recent edition of a document published by the Insurance Services Office (ISO) entitled "Fire Suppression Rating Schedule."

2. A fire station service area should be based on the following fire equipment service area standards: two and one-half "road miles"—response distance lines—for a ladder company for areas containing five or more three-story buildings and one and one-half "road miles" for an engine company.[4] The fire protection service area or response district of an engine or ladder company, which must be housed in a fire station, is measured by the length of streets, "road miles," in all directions from a fire station. The distance standards should be reduced if streets are narrow or in poor condition; if traffic, one-way streets, topography, railway crossings, waterways, or other unusual locational conditions may hinder response; or if other circumstances peculiar to the particular response district or municipality indicate that such a reduction is needed.

OBJECTIVE NO. 8 -HOUSING

To provide adequate location and choice of housing types for varied age and income groups of different size households and for persons with special needs.

Principle
Adequate choice in the type, size, cost, and location of housing units will assure equal housing opportunity. Proper maintenance, preservation, and, as necessary, rehabilitation of the Village's existing housing stock will help to continue to contribute to an adequate supply of sound housing.

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[4]*The need for an additional engine company and/or ladder company should be further based on the number of hydrants or amount of lineal length of streets in a fire protection service area. For example, the total amount of hydrants or lineal length of streets should be determined for those areas lying within an existing fire station response district and for those areas lying within urban service areas that extend beyond this existing district. If the total number of hydrants or lineal miles of streets in the outlying urban service area exceeds 50 percent of the total number of hydrants or lineal miles of streets in the existing fire station service area, then an additional fire engine company and/or ladder company, housed in a fire station should be provided and centrally located in the outlying urban area. For further information, refer to the most recent edition of the* Field Procedures Reference Guide, *published by the ISO Commercial Risks Services, Inc.*

Standards

1. Housing units in the Village of Wales planned urban service area should be geographically well distributed and include a full range of housing types, sizes, and costs. Since the Village of Wales is presently unsewered, the majority of the housing types within the Village of Wales planned urban service area should continue to be detached single-family dwelling units with some two-family units, multi-family units, and housing for the elderly.

2. Important to the establishment of an adequate supply of sound housing is the continual need for preventive maintenance of existing housing units and early rehabilitation of deteriorating housing units undertaken as follows:

    a. Basically sound housing units which have only minor defects[5] should be upgraded and maintained in proper condition to the maximum extent possible.

    b. Sound housing units which have major defects[6] should be repaired and rehabilitated and measures should be taken to eliminate or minimize future deterioration.

    c. Housing units which have deteriorated to the point of becoming a health or safety hazard for their occupants and which are not economically feasible to rehabilitate should be removed and replaced by decent, safe, and sanitary housing units.

OBJECTIVE NO. 9 - HISTORIC PRESERVATION

To preserve the historic heritage of the Wales area.

Principle

The preservation of structures, sites, and districts possessing historic or architectural significance will promote the educational, cultural, and general welfare of residents of the Wales area and provide for a more interesting, attractive, and vital community. Accordingly, it is in the public interest to promote the protection, enhancement, perpetuation, and use of sites and improvements of special historic interest or value.

Standards

1. Intensive historic surveys should be conducted in the Village of Wales study area. Historic sites, buildings, and structures identified through such surveys should be protected through the application and enforcement of the Village historic preservation ordinance and the Village of Wales Historic Preservation Commission.

2. The standards promulgated by the U.S. Department of the Interior may be used for any historic preservation projects in the Village of Wales study area. These standards govern all forms of historic preservation treatments, including acquisition, protection, stabilization, preservation, rehabilitation, restoration, and reconstruction. The following general standards may be applied to treatments undertaken on designated historic properties in the Village of Wales study area:

    a. Every reasonable effort should be made to use a structure or site for its originally intended purpose, or to provide a compatible use that requires minimal alteration of the site or structure and its environment.

    b. The distinguishing original qualities or character of a building, structure, or site and its environment should not be destroyed. The removal or alteration of any historic materials or distinctive architectural features should be avoided whenever possible.

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[5] *Minor defects are those defects which do not impair the livability of the housing unit nor accelerate the physical deterioration of the structure, e.g., peeling paint, loose gutters or downspouts, or cracked windows.*

[6] *Major defects are those defects which can impair the livability of the housing unit and may accelerate the physical deterioration of the structure, e.g., large areas of exposed unpainted or unprotected wood, cracks in walls, or missing roof singles or siding materials.*

c. All buildings, structures, and sites should be recognized as products of their own time. This should be considered before alterations are undertaken which have no historical basis and which seek to create an antique appearance.

d. Changes which may have taken place in the course of time are evidence of the history and development of a building, structure, or site and its environment. If these changes have acquired significance in their own right, their significance should be recognized and respected.

e. Distinctive stylistic features or examples of skilled craftsmanship which characterize a building, structure, or site should be treated with sensitivity.

f. Deteriorated architectural features should be repaired rather than replaced, wherever possible. In the event replacement is necessary, the new material should match that being replaced in composition, design, color, texture, and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historical, physical, or pictorial evidence, rather than on conjectural designs or the availability of different architectural elements from other buildings or structures.

g. The surface cleaning of structures should be undertaken with the gentlest means possible. Sandblasting and other cleaning methods that will damage historic building materials should not be undertaken.

h. Every reasonable effort should be made to protect and preserve archaeological resources affected by, or adjacent to, any acquisition, protection, stabilization, preservation, rehabilitation, restoration, or reconstruction project.

i. Contemporary design for alterations and additions should not be discouraged when such changes do not destroy significant historical features and are compatible with scale, mass, and architectural features of the historic property and its environment.

j. New additions should be designed so that if removed, the integrity of the structure is not impaired.

SUMMARY

This chapter presented planning objectives chosen by the Village Plan Commission to express the physical development goals of the Village of Wales and to guide the preparation of the Village master plan. These objectives, along with supporting principles, standards, and design guidelines, were based, in part, upon the results of a community survey conducted in 2000. Key findings in this respect are as follows:

- A community survey indicated that most Village residents and business operators value its small-village character and precious natural resources. They prefer to grow somewhat larger in size but at the present rate or a slightly slower rate than the past ten years; support single-family residential development and housing for the elderly, but oppose new two- and multi-family residential development; do not support, in general, new commercial or industrial development, but support small professional offices and specialty shops for the Historic Village Center; favored additional parks, recreational facilities, and an interconnecting system of walkways, bikeways, and trails; and favored further improvements to the Historic Village Center and along Main Street while establishing design standards for new intensive urban developments.

- Nine planning objectives were formulated, with supporting principles and standards, intended to guide future planning and development. The objectives deal primarily with: 1) allocation of various land uses, 2) spatial distribution of various land uses, 3) maintenance of the vitality of the Historic Village Center and existing business areas, 4) protection of the natural resource base, 5) provision of adequate recreational opportunities, 6) provision of an integrated transportation system with a high aesthetic quality, 7) provision of high-quality fire protection services, 8) provision of an adequate supply and range of housing types, and 9) preservation of historic resources.

- Design guidelines were established for use by local officials to provide guidance to developers and to evaluate development and redevelopment proposals, including related site, landscaping, and building plans. These guidelines may also provide potential design ideas for improving the visual quality of the Village or provide potential solutions to design problems with respect to both urban design and site planning for the Village, including the historic center.

Chapter VII

THE MASTER PLAN

A master plan is an official statement reflecting a community's major objectives concerning the desirable physical development of the area. The master plan for the Village of Wales, as set forth in this chapter, consists of recommendations for the type, amount, and spatial location of various land uses and supporting community facilities required to serve the needs of Village residents through 2020. The master plan also recommends a recreation trail and bicycle-way system and concentrated areas of important natural resources to be preserved. The plan further contains design recommendations for development and redevelopment in the Village, including the Historic Village Center.

The master plan is intended to be used as a tool to help guide the physical development of the Wales community into a more efficient and attractive pattern, and to promote the public health, safety, and general welfare of the community. The plan promotes the public interest rather than the interests of individuals or special groups. The very nature of the plan contributes to this purpose, for the plan facilitates consideration of the relationship of all development proposals, whether privately or publicly advanced, to the overall physical development of the entire community. The plan also provides a focus for citizen participation in the planning and subsequent development process.

The master plan is long-range, providing a means of relating day-to-day development decisions to long-term planning objectives. In the case of Wales, the master plan is intended to provide for the future, as well as present, needs of the Village and its environs to the plan design year 2020. The Village plan, however, should not be considered as rigid and unchangeable, but rather as a guide to help local officials and concerned citizens review development proposals. As conditions change from those used as a basis for the preparation of the plan, the plan should be revised as necessary. Accordingly, the plan should be reviewed periodically to determine whether the planning objectives are still valid, as well as to determine the extent to which the various objectives are being realized through plan implementation. It will be necessary to review the plan prior to 2010 to incorporate changes, if any, needed to comply with the comprehensive planning, or "Smart Growth," legislation adopted by the Wisconsin Legislature in 1999. This legislation requires any action of a local government that affects land use taken on or after January 1, 2010, to be consistent with the community's Comprehensive Plan.

PLAN DETERMINANTS

Existing Conditions, Regulations, and Plans

Information regarding the natural and built environments is essential to any sound master planning effort. An analysis of the natural resource base and existing land uses, community facilities, and public utilities of the Wales study area was provided in Chapters III and IV. The master plan for the Village of Wales planned urban service

area properly takes into account the location of important natural features, including soils and topography, water resources and associated wetlands and floodplains, woodlands, and wildlife habitat areas, as well as areas already developed or committed to urban development.

The plan also considers local development objectives reflected in adopted land use regulations. Chapter V provides information on land use control ordinances in effect in the Village of Wales study area, which includes existing zoning, land division control, official mapping, shoreland and floodland protection, and construction site erosion control and stormwater management ordinances. A series of State and Federal regulatory programs also control the use of waters and wetlands and the potential water quality impacts of development in the study area.

Pertinent recommendations of local, county, and regional plans, as they relate to the Village of Wales study area, have important implication for any local planning effort. Broader areawide and local plans considered during the preparation of the Village master plan include land use, transportation system, bicycle-way system, water quality management, and park and open space plans as described in Chapter V.

Survey, Objectives, and Design Guidelines

The preparation of the Village master plan and attendant planning objectives were guided by the Village Long-Range Planning Committee and, in part, by the results of a community survey. The survey results indicated that most respondents wish to retain and enhance the small-village character while preserving its precious historic and natural features. Respondents also favored an interconnecting walkway and bikeway system and establishing design standards for new intensive urban developments. Results of the survey are summarized in Chapter VI and further detailed in Appendix B.

In addition, Chapter VI sets forth community planning objectives, with supporting principles and standards, intended to guide the preparation of the master plan. The objectives deal primarily with: 1) allocation of various land uses, 2) spatial distribution of various land uses, 3) maintenance of the vitality of the Historic Village Center and existing business areas, 4) protection of the natural resource base, 5) provision of adequate recreational opportunities, 6) provision of an integrated transportation system with a high aesthetic quality, 7) provision of high-quality fire protection services, 8) provision of an adequate supply and range of housing types, and 9) preservation of historic resources.

Design guidelines were also established in Appendix C as an element of the master plan for use by local officials to provide guidance to developers and to help evaluate development and redevelopment proposals, including related site, landscaping, and building plans. The guidelines may also be used as a basis for recommending potential solutions to design problems or to further enhance the visual quality of the Village.

Wales Planned Urban Service Area and Boundary Agreements

The master plan considered a planned sanitary sewer service area, sometimes used to define planned urban service areas, that was identified for the Wales area as shown on Map 27 in Chapter V and in a report titled, *Sanitary Sewerage System Plan for the Northwestern Waukesha County Area*, April 2000. Even though no existing public sanitary sewer service is currently available within the Village of Wales study area, an evaluation was made of alternative treatment plant options for serving the northwestern part of Waukesha County, including the Wales area. The above study recommends the continued operation and expansion of the Delafield-Hartland Water Pollution Control Commission (Dela-Hart) sewage treatment plant due to increasing growth in the service area of the plant. During 2001, Dela-Hart also prepared a facility plan to evaluate the current treatment needs and the best way to expand and upgrade its plant. Under the long-term buildout conditions within the plant's service area, which assumes that the Wales area will be connected to the Dela-Hart sewerage system at some point after 2010, the capacity of the plant will need to be expanded again. Subsequent to the completion of the aforereferenced 2000 and 2001 plans, however, the Towns of Delafield and Genesee, which are located adjacent to the Village of Wales and within the long-term service area, determined not to participate in a study that would further analyze the potential to extend public sewer service to areas in the vicinity of the Village as part of the planned Dela-Hart plant expansion. Therefore, the Village of Wales also opted not to participate at this time due to the impracticality of providing such services to only a limited service area if the two Towns do not desire such services.

The Village of Wales entered into agreements with the Towns of Delafield and Genesee that provide a basis for establishing future municipal boundaries among the three communities and provide for cooperative planning regarding certain areas of mutual interest. The agreements are intended to provide for adequate and logical growth between the Towns and the Village so that each can properly and logically plan for the future needs of their respective community, and to avoid future potential lawsuits related to annexations. The Village of Wales and Town of Delafield agreed that the current municipal boundaries existing between the two communities, and as shown on the recommended master plan, would be fixed in perpetuity, subject only to alteration by the mutual written agreement of the two communities. The planned urban service area shown in the master plan also includes those areas of the Town of Genesee identified on Map 32 in Chapter V that, under the agreement between the Town and Village, would be immediately incorporated into the Village, and those areas that would be reserved for future expansion of the Village after the property owner(s) voluntarily request such annexation or upon development of said land.

Future Population, Housing, and Employment Levels

The range of population, household, and employment levels envisioned under two realistic alternative future scenarios for the Village of Wales—an intermediate-growth-centralized scenario and a high-growth-decentralized scenario—prepared by the Regional Planning Commission are set forth in Chapter II. Based on past and current development trends and the amount of remaining developable lands in the defined planned urban service area, the future forecast levels for the Village would likely fall within the range of levels envisioned under the regional alternatives considered.

The population of the Village of Wales may be expected to reach a resident population level of about 3,500 to 3,700 persons by the year 2020. This level represents an increase of about 980 to 1,180 persons, or 39 to 47 percent, over the year 2000 level of about 2,520 persons. The number of dwelling units within the Village may be expected to reach a total housing stock of about 1,200 to 1,260 units. This level represents an increase of about 340 to 400 units, or 40 to 47 percent, over the year 2000 housing stock of about 860 units. The number of jobs may be expected to increase from about 560 jobs in 2000 to about 650 to 700 jobs by 2020. This level represents an increase of about 90 to 140 jobs, or 16 to 25 percent, over the 2000 level.

THE RECOMMENDED PLAN

The recommended master plan for the Village of Wales planned urban service area is presented on Map 33. The data in Table 29 compare existing 2000 and recommended 2020 land uses in the Village of Wales planned urban service area. The plan indicates where certain types of urban development should be encouraged while preserving historic and environmentally significant resources.

Residential Development

Under the recommended plan, new residential development would occur both through the infilling of vacant platted residential lots and through the creation of new residential areas contiguous to, and extending outward from, existing residential areas. Table 29 indicates that areas designated for residential use would total approximately 1,328 acres, or 63 percent, of the Village of Wales 2020 planned urban service area, under the recommended plan. This represents an increase of about 325 acres over the 2000 level of about 1,003 acres of residential land. Incrementally, an estimated 81 acres of land would be developed every five years over the 20-year planning period. A significant portion of this increase in residential development, about 107 acres or 33 percent, is due to a proposed 423-acre residential and golf course planned development called "The Legend at Brandybrook," which was incorporated into the Village in December 2000. Map 33 shows the proposed street and lot layout design for this planned development, which has been approved by the Village.

The plan further recommends that open space and conservation design concepts be applied, whenever possible, to residential developments, especially those proposed on land containing environmentally sensitive areas, as illustrated in Figure 2. When properly designed, this type of development, sometimes referred to as cluster development, can help maintain the overall country character of the landscape, preserve significant natural features, and minimize road construction and other site improvements costs. Lot sizes, for example, could be

Map 33

RECOMMENDED MASTER PLAN FOR THE VILLAGE OF WALES PLANNED URBAN SERVICE AREA: 2020

- PLANNED URBAN SERVICE AREA BOUNDARY: 2020
- EXISTING CORPORATE LIMITS: 2001
- SINGLE-FAMILY RESIDENTIAL
- TWO-FAMILY RESIDENTIAL
- MULTI-FAMILY RESIDENTIAL
- SENIOR HOUSING
- MIXED TWO- AND MULTI-FAMILY RESIDENTIAL
- MIXED RESIDENTIAL AND LIMITED COMMERCIAL (PART OF HISTORIC VILLAGE CENTER)
- GENERAL RETAIL SALES AND SERVICES
- OFFICES AND PROFESSIONAL SERVICES
- PLANNED COMMERCIAL CENTER
- INDUSTRIAL
- COMMUNICATION AND UTILITIES
- PRIMARY ENVIRONMENTAL CORRIDORS
- ISOLATED NATURAL RESOURCE AREAS
- OTHER OPEN LANDS TO BE PRESERVED
- SURFACE WATER
- GOVERNMENTAL AND INSTITUTIONAL
  - V VILLAGE HALL
  - W FUTURE PUBLIC WORKS BUILDING
  - F FUTURE FIRE STATION
  - O POST OFFICE
  - E PUBLIC ELEMENTARY SCHOOL
  - H PUBLIC HIGH SCHOOL
  - C CHURCH
  - R CEMETERY
- PARKS AND RECREATION
  - C COMMUNITY PARK
  - N NEIGHBORHOOD PARK
  - T GLACIAL DRUMLIN TRAILHEAD
  - G PRIVATE GOLF COURSE
- EXISTING PROPERTY LINE
- EXISTING STREET RIGHT-OF-WAY LINES
- PROPOSED PROPERTY LINE
- PROPOSED STREET RIGHT-OF-WAY LINES

Source: SEWRPC.

GRAPHIC SCALE

0 1500 3000 FEET

Table 29

SUMMARY OF 2000 EXISTING AND 2020 RECOMMENDED LAND USES
IN THE VILLAGE OF WALES PLANNED URBAN SERVICE AREA

Land Use Category	Existing 2000 Land Use		Planned Change: 2000-2020		Planned 2020 Land Use	
	Acres[a]	Percent	Acres[a]	Percent Change	Acres[a]	Percent
Urban						
Residential						
Single-Family	948	44.8	277	29.2	1,225[b]	57.9
Two-Family	38	1.8	19	50.0	57[c]	2.7
Multi-Family	17	0.8	29	170.6	46[c,d]	2.2
Residential Subtotal	1,003	47.4	325	32.4	1,328	62.8
Commercial	52	2.5	87	167.3	139[b]	6.6
Industrial	10	0.5	2	20.0	12	0.6
Communication and Utilities	1	--[e]	--	--	1	--[e]
Governmental and Institutional	94	4.4	15	16.0	109	5.2
Recreational[f]	50	2.4	216	432.0	266	12.6
Urban Subtotal	1,210	57.2	645	53.3	1,855	87.7
Nonurban						
Primary Environmental Corridor[g]	173	8.2	-32	-18.5	141	6.6
Isolated Natural Resource Areas[g]	70	3.3	-13	-18.6	57	2.7
Agricultural and Other Open Lands	663	31.3	-600	-90.5	63[h]	3.0
Nonurban Subtotal	906	42.8	-645	-71.2	261	12.3
Total	2,116	100.0	--	--	2,116	100.0

[a] *Street rights-of-way and off-street parking areas are included in the associated land use category.*

[b] *Includes 50 percent of area shown as mixed residential and limited commercial uses on Map 33.*

[c] *Includes 50 percent of area shown as mixed two- and multi-family residential uses on Map 33.*

[d] *Includes the area shown as senior housing on Map 33.*

[e] *Less than 0.05 percent.*

[f] *Consist of intensively used outdoor recreation areas and the Glacial Drumlin Trail.*

[g] *Includes associated surface water areas.*

[h] *This total represents the areas identified as "Other Open Lands to be Preserved" and surface-water areas not encompassed in delineated environmental corridors or isolated natural resource areas in the recommended plan.*

Source: SEWRPC.

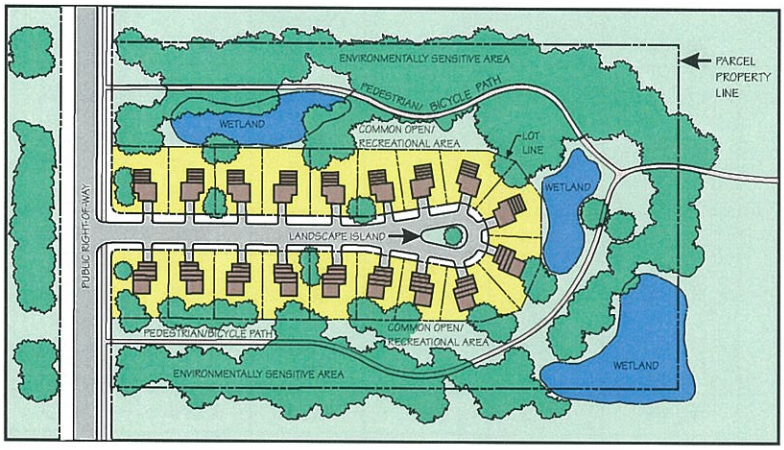
reduced and clustered while the rest of the site concerned is retained in permanent open space use. Open space and conservation design concepts that can be applied to the Village are further described in the next chapter.

The recommended master plan identifies four basic categories of residential land uses based mostly upon the types of residential dwelling units that exist in the Village. Since the Village of Wales does not have public sanitary sewer services, the majority of the housing types within the planned urban service area would continue to be detached single-family dwelling units with some two-family units, multi-family units, and senior housing as indicated on Map 33.

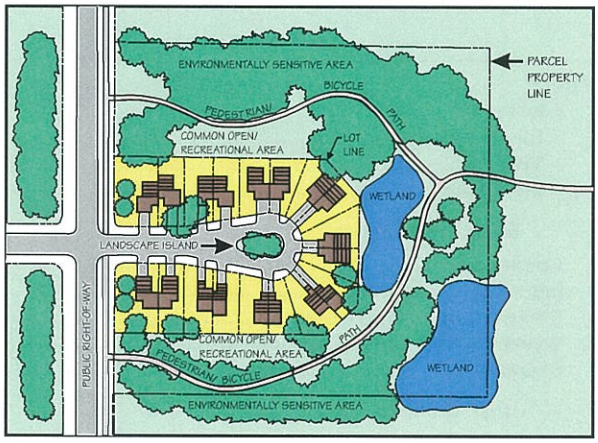
Figure 2

ALTERNATIVE RESIDENTIAL DEVELOPMENT DESIGNS COMPATIBLE WITH ENVIRONMENTALLY SENSITIVE AREAS

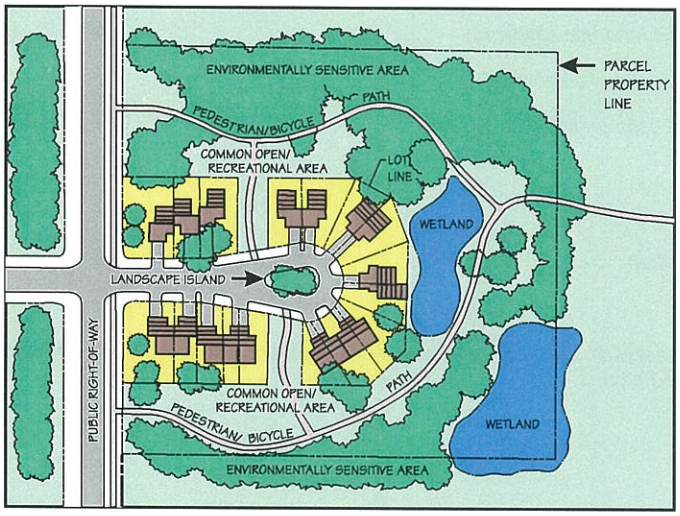
A. CLUSTERED SINGLE-FAMILY RESIDENTIAL DEVELOPMENT



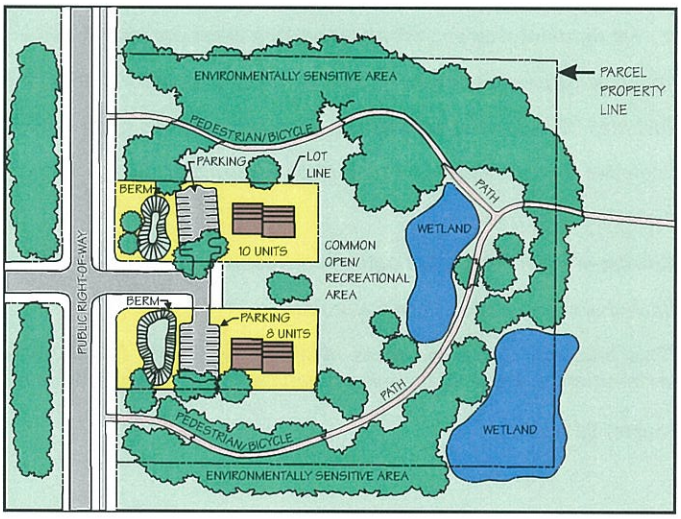
B. CLUSTERED TWO-FAMILY RESIDENTIAL DEVELOPMENT



C. CLUSTERED TOWNHOUSE RESIDENTIAL DEVELOPMENT



D. CLUSTERED MULTI-FAMILY RESIDENTIAL DEVELOPMENT



Source: SEWRPC.

Single-Family Residential Development

Single-family residential developments in the Village would have a density of no more than 1.45 dwelling units per net acre, with lot sizes typically of 30,000 square feet or larger per dwelling unit. The lots should contain suitable soils and topography for the proper siting of building pads, private sewage disposal systems, driveways, and related accessory structures. Under the recommended plan, single-family residential land uses

would total about 1,225, or 58 percent, of the Village of Wales 2020 planned urban service area. New areas of this residential classification are recommended to occur mostly in the eastern and southwestern parts of the planned urban service area.

Two-Family Residential Development

Areas for two-family residential development would total about 57 acres, or 3 percent, of the planned urban service area under the recommended plan. Densities for this classification would typically be no more than 2.9 dwelling units per net acre (minimum 15,000 square feet of area per individual dwelling unit) or at least 30,000 square feet of lot area for each duplex. These areas are recommended generally within existing two-family developments and in the central and northeastern parts of the Village planned urban service area.

Multi-Family Residential Development and Senior Housing

The areas proposed for multi-family residential development and senior housing under the recommended plan would have densities ranging from about 2.9 to 4.8 dwelling units per net acre (minimum of 9,100 to 15,000 square feet of area per dwelling unit), similar to the overall density of existing multi-family residential developments in the Village. Under the plan, these types of residential uses would total about 46 acres, or 2 percent, of the planned urban service area. Two new areas of such uses are recommended within the planned urban service area. A mixed two-family and multi-family condominium development is proposed as part of a planned golf course community called The Legend at Brandybrook, which is to be located in the northeastern part of the planned urban service area. The other multi-family development would be for senior citizens—senior housing—which is recommended in the south-central part of the Village, near the Wales Community Park.

Commercial Development

The recommended master plan depicts several areas devoted to commercial land uses. These commercial uses would serve local residents and tourists drawn to recreational opportunities in the unique southern Kettle Moraine area. Major attractions in the Wales area include not only the surrounding lakes, but also the popular Glacial Drumlin Trail, Kettle Moraine Scenic Drive, South Kettle Moraine State Forest, and Lapham Peak State Park. Under the recommended plan, commercial land uses would encompass an area of about 139 acres, or 7 percent, of the Village planned urban service area. This represents an increase of about 87 acres over the 2000 level of about 52 acres, or an incremental increase of about 22 acres every five years over the 20-year planning period. Categories of commercial development shown on the plan include general retail sales and services, offices and professional services, planned commercial centers, and, within the Historic Village Center, mixed residential-commercial uses. These commercial areas represent extensions of existing uses in addition to new areas that would serve the commercial needs of the Wales area to the plan design year 2020.

General Retail Sales and Services

General retail sales and services are characterized by individual stores with onsite parking for customers and are mostly oriented to meet the retail and service needs of residents of the Wales area. Typical commercial uses include automobile service stations, convenience food stores, pharmacies, general merchandise stores, hardware and sporting equipment stores, barber and beautician shops, laundry and dry cleaner outlets, restaurants, banks, and other retail sales and service establishments. Such business establishments are recommended in the north part of the planned urban service area, mostly along and at the intersection of two major arterial streets in the Village, Wales Road (STH 83) and Summit Avenue (USH 18).

Offices and Professional Services

This land use category includes the offices and professional services of doctors, dentists, architects, landscape architects, engineers, lawyers, computer programmers, graphic artists, insurance agents, travel agents, financial planners, and other similar recognized professions and consultation services. A concentrated area of offices or professional service buildings are recommended in the northern part of the Village, west of the intersection of Summit Avenue (USH 18) and Wildwood Trail street, which has ready access to USH 18.

Planned Commercial Center

During the planning process, the Village wished to designate two areas as planned commercial centers to avoid a typical suburban strip shopping center or "shopping mall" appearance of a long linear building with attached stores, devoid of any design theme. The planned commercial complexes would be characterized by two or more buildings clustered on a single parcel that share onsite parking facilities for customer automobiles and a shopping environment geared to pedestrians with connecting sidewalks or paved paths. The designation of these areas for planned commercial establishments is also an attempt to create a mix of synergistic commercial uses in an aesthetically-pleasing setting with a unique design theme expressed in the architecture of attractive buildings and complementary ornate landscaping. Typical commercial uses are envisioned to include savings and loan institutions, offices and professional services, grocery stores, general merchandise stores, pharmacies, gift or craft shops, and restaurants with seating facilities, but not including gasoline service stations or automobile repair shops. Two such centers are recommended in the Village, northwest and southeast of the intersection of Wales Road (STH 83) and Summit Avenue (USH 18). Due to their proximity to this major intersection, any proposed development at these two locations will require a traffic impact study and the installation of any necessary traffic improvements identified in the study.

Historic Village Center (Mixed Residential and Limited Commercial Uses)

The Historic Village Center, as delineated on Map 19 in Chapter IV, is a special planning district proposed to continue to serve as a major focal point for the Wales area, supported by the Glacial Drumlin Trail and other nearby attractions. The Center should also foster the identity of the Village, an identity due, in part, to the historic character of the buildings located in the area. The presence of people drawn to and living within the Historic Village Center would project a thriving community.

The plan recommends that the Historic Village Center consist of a mix of mostly single-family residential uses with some compatible, small professional offices, studios, and specialty stores that do not need exposure to, or generate volumes of, automobile traffic and are in keeping with the predominantly residential and historic architectural character of the Center. Small businesses may include home occupations as more people are working at home due, in part, to advancement in technology that allows for telecommuting. Small professional service-type businesses could include offices and studios for artists, accountants, doctors, dentists, engineers, computer programmers, landscape architects, travel agents, insurance agents, and other recognized professions. Specialty stores or shops may consist of art galleries; craft and antique stores; trailside bike, ski, and in-line skating shops; bed-and-breakfast establishments; deli, bakery, ice cream, and tea/coffee shops; book and gift stores; or any combination thereof. Automobile service stations, fast food restaurants, drive-through facilities, and other high traffic generators that usually rely on exposure to arterial highways are not recommended within the Center. Housing for the elderly could also be accommodated in or near this Center due to convenient proximity to services, opportunity for recreational pursuits, especially walking and bicycling, and passive enjoyment of daily activities (people-watching) in the Center. The Village should take advantage of the economic benefits that could be realized from the Glacial Drumlin Trail and its trailhead established within the Historic Village Center by encouraging local businesses to provide goods and services to trail users.

Ultimately, any new businesses proposed within the Historic Village Center should be sensitive to and compatible with the predominantly historic and residential character of the Center. The Village has been working progressively to maintain and improve the vitality of the Center by providing significant street improvements with stormwater management facilities. Additional amenities such as street trees, decorative street lighting, and ornate street furniture should eventually be integrated into the streetscape to establish a unique "small-village" setting, possibly with a Welsh or "country" design theme. The plan recommends that the Village continue to maintain and improve the vitality of its Historic Village Center in accordance with the historic preservation standards in Chapter VI, the design guidelines for the Center in Appendix C, and the design recommendations discussed later in this chapter.

Industrial Development

The plan envisions that the areas devoted to industrial land uses would occupy about 12 acres, or less than 1 percent, of the planned urban service area. This represents a limited increase of only two acres over the 2000

level, which is consistent with the Village's desire not to encourage significantly more industrial development, as expressed in the public opinion survey. The increase in industrial lands would take place through the expansion of existing industrial uses located southwest of the Historic Village Center.

Communication and Utility Development

Communication and utility land uses—excluding street and highway rights-of-way—would encompass about one acre of the planned urban service area in 2020. Only two such sites would be located within the Village, which would consist of an existing utility substation and a new private well and pumping station to serve the planned golf course community. No significant increase is anticipated in this land use category during the planning period. Additional acreage needed for the construction of public streets to serve new development is included as an associated land use for each of the principal land use categories, as indicated in Table 29.

Governmental and Institutional Development

As shown on Map 33, governmental and institutional land uses would occupy about 109 acres, or 5 percent, of the planned urban service area. These uses include the continuation of existing governmental and institutional uses as well as areas for new and expanded public facilities as discussed below.

Village Facilities

The plan envisions the continued use of the existing Village Hall with no plans to expand the building within the plan design period. The Village, however, plans to use the existing fire station as a public works building after completion of a new fire station on property owned by the Village. The existing station would be used to store Village-owned equipment for maintaining public grounds, which are presently stored in a rented building. The master plan shows the tentative location for a new Wales-Genesee Fire Station abutting Wales Road (STH 83), on the west side of the community park, that would be jointly owned and operated by the Village of Wales and the Town of Genesee. This new location and the future facilities on the site would house additional fire-fighting equipment with ready access to an arterial highway in a more centralized location to adequately serve the Village of Wales and the Town of Genesee.

Educational Facilities

The Village of Wales and most of the study area are served by the Kettle Moraine School District. As indicated in Chapter IV, the District conducted a school facility study to determine if and to what extent certain school facilities should be expanded to accommodate future enrollments and needs. As a result of this study and an approved referendum, the District is in the process of renovating and expanding the classroom facilities at Kettle Moraine High School. The District is currently studying options for addressing space constraints experienced at the kindergarten through eighth grade levels. If the District needs additional recreational facilities, the Village of Wales is prepared to sell the Village-owned property containing existing recreational facilities on land located northwest of the Kettle Moraine High School site. In addition, the District owns 73 acres of vacant land near the Brandybrook Community Center, which it also owns, and 22 acres of vacant land near the existing Dousman Elementary School and Kettle Moraine Middle School for potential future facilities. These diligent planning efforts by the Kettle Moraine School District should allow the District to continue to provide quality education in which all of the District schools have received the coveted national recognition as a Blue Ribbon School; the highest percentage of schools of any school district in Wisconsin to receive this prestigious education award.

Park and Recreational Development

Specific recommended park and recreational uses for the Village planned urban service area are based, in part, upon recommendations contained in a document entitled, *Comprehensive Park Plan for the Village of Wales*, April 1993, prepared by Crispell-Snyder, Inc. In that report, recommendations were made regarding the acquisition and development of land for a new park site and the improvement and installation of additional recreational facilities at existing parks. Under the recommended master plan, public and private intensive outdoor recreational uses would encompass a total of about 266 acres of land, or 13 percent, of the Village 2020 planned urban service area. This represents an increase of about 216 acres over the 2000 level of about 50 acres. These acreages do not include those portions of the recreation sites that contain environmentally sensitive areas within

the site boundaries, which are discussed under separate environmental land use categories. A significant portion of the total increase, about 131 acres or 61 percent, is due to a private golf course currently under development, The Legend at Brandybrook.

It should be noted that the Village is surrounded by major recreation attractions: about a quarter to a half mile northwest of the Village are the Ice Age National Scenic Trail, Kettle Moraine Scenic Drive, Lapham Peak State Park, and Scuppernong Creek Parkway; about five miles north are the Lake Country Recreation Trail and Nagawaukee County Park, Ice Arena, and Golf Course; about a half mile southwest is the Kettle Moraine State Forest; and about four miles east is the Retzer Nature Center.

Village Parks

The plan recognizes the continued use of Village-owned park sites which include Breconshire Park, Wales Firemen's Memorial Park, Wales Community Park, and a nine-acre portion of the so-called Kettle Moraine High School site. The Village is served by two small neighborhood parks. Brechonshire Park serves neighborhood residents located west of STH 83, while Firemen's Memorial Park serves mostly residents on the east side of the highway. Firemen's Memorial Park is recommended to be expanded by 35,000 square feet to improve existing recreational facilities and to accommodate an off-street parking area. Village residents would continue to use the recreational facilities located on or near the Wales Elementary School and Kettle Moraine High School sites, including the Village-owned property located north and west of the high school athletic fields, which is used primarily by the Kettle Moraine School District. The Village intends to sell this site to the School District upon completion of the new community park. The District will then likely continue to use the existing soccer fields on the subject site which would be incorporated with the other adjacent outdoor recreation facilities on the high school premises.

The Wales Community Park, located southeast of the intersection of STH 83 and CTH G, is under development and would function as an areawide community park serving the residents of the general Wales area, including those in the Village of Wales and the Town of Genesee. This 79-acre park is planned to include a playground, a sledding hill, a skating rink, a retention pond, a concession building, parking areas, picnic shelters, baseball diamonds, soccer fields, and recreation trails.

Bicycle and Recreation Trail Facilities

Trail-oriented facilities are advanced by the recommended master plan for both recreational and utilitarian purposes. The recommended trails would accommodate pedestrians and bicyclists, serving as recreational facilities as well as providing safe pedestrian and bicyclist access to parks, schools, shopping areas, and the Historic Village Center in the Wales area. As shown on Maps 34 through 37, a network of trails is recommended to traverse the Wales study area, comprehensively linking residential areas and providing access to major activity centers. Maps 34 and 36 show the main bikeway[1] and recreation trail routes within the entire study area. Maps 35 and 37 show more detailed network systems for the Village planned urban service area and environs indicating not only the primary routes, but also the secondary routes connecting residential areas to the main routes.

Approximately 37 linear miles of designated bikeways are recommended in the study area to serve recreational and utilitarian purposes by linking Village residents to both significant urban and natural features identified on Maps 34 and 35. One of the most popular multi-use recreation trails in the area is the Glacial Drumlin Trail which travels through the heart of the Village of Wales. A trailhead for this facility has been established within the Historic Village Center and contains a parking lot, a picnic shelter, bike racks, restrooms, and a tot lot. The trail allows users the opportunity to practice a wide array of trail-related activities such as walking, jogging, bicycling,

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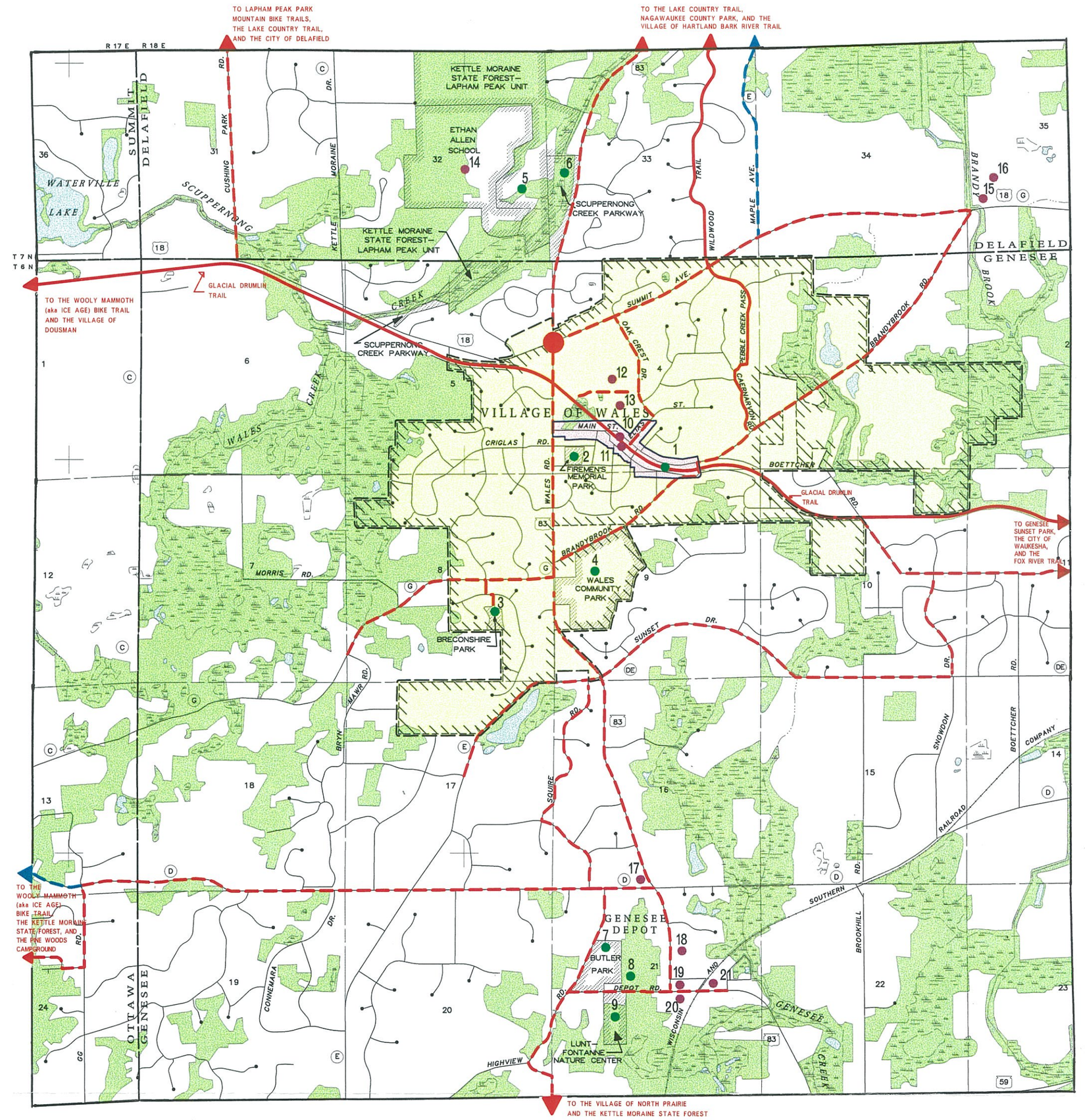
[1] *A "bikeway" is a general term that includes any road, path, or way that may legally be used for bicycle travel. Types of bikeways include "bike paths," which are physically separated from motorized vehicles; "bike lanes," which are portions of roadways that are designated by striping, signing, and pavement markings for the exclusive or preferential use of bicycles; and "shared roadways," which are roadways that do not have a designated bicycle lane, but may legally be used for bicycle travel. A "bike route" is a bikeway designated with directional and information markers, and may consist of a combination of bike paths, bike lanes, or shared roadways.*

Map 34

RECOMMENDED MAIN BIKEWAYS FOR THE VILLAGE OF WALES STUDY AREA



- EXISTING 2001 CORPORATE LIMIT BOUNDARIES
- VILLAGE OF WALES PLANNED URBAN SERVICE AREA
- WALES HISTORIC VILLAGE CENTER
- ENVIRONMENTALLY SIGNIFICANT AREAS
- SURFACE WATER
- EXISTING MAIN BIKEWAY
- RECOMMENDED MAIN BIKEWAY
- ALTERNATIVE MAIN BIKEWAY

Source: SEWRPC.

- GENERAL COMMERCIAL CENTER
- SELECTED PARKS AND RECREATIONAL USES
  1. GLACIAL DRUMLIN TRAILHEAD
  2. WALES FIREMEN'S MEMORIAL PARK
  3. BRECONSHIRE PARK
  4. WALES COMMUNITY PARK
  5. LAPHAM PEAK STATE PARK
  6. SCUPPERNONG CREEK PARKWAY
  7. BUTLER PARK
  8. TEN CHIMNEYS *
  9. LUNT-FONTANNE NATURE CENTER

* LISTED IN BOTH THE NATIONAL AND STATE REGISTER OF HISTORIC PLACES

- SELECTED GOVERNMENTAL AND INSTITUTIONAL USES
  10. VILLAGE HALL
  11. WALES POST OFFICE
  12. KETTLE MORAINE HIGH SCHOOL
  13. WALES ELEMENTARY SCHOOL
  14. ETHAN ALLEN SCHOOL / STATESAN HISTORICAL DISTRICT *
  15. BRANDYBROOK COMMUNITY CENTER
  16. POTENTIAL FUTURE SCHOOL SITE
  17. ST. PAUL CATHOLIC SCHOOL
  18. MAGEE ELEMENTARY SCHOOL
  19. WALES-GENESEE LIONS CLUB / GENESEE DEPOT AMUSEMENT HALL *
  20. GENESEE TOWN HALL
  21. GENESEE DEPOT POST OFFICE

NOTE: ENVIRONMENTALLY SIGNIFICANT AREAS CONSIST OF AREAS DELINEATED AS ENVIRONMENTAL CORRIDORS, ISOLATED NATURAL RESOURCE AREAS, AND "OTHER OPEN LANDS TO BE PRESERVED" ON THE RECOMMENDED MASTER PLAN (SEE MAP 33).

GRAPHIC SCALE

0 2500 5000 FEET

Map 35

RECOMMENDED BIKEWAYS FOR THE VILLAGE OF WALES PLANNED URBAN SERVICE AREA AND ENVIRONS

- EXISTING CORPORATE LIMITS: 2001
- VILLAGE OF WALES PLANNED URBAN SERVICE AREA BOUNDARY: 2020
- WALES HISTORIC VILLAGE CENTER
- RESIDENTIAL LAND USES
- GENERAL COMMERCIAL CENTER
- SELECTED GOVERNMENTAL AND INSTITUTIONAL USES
- SELECTED PARKS AND RECREATIONAL USES
- OTHER URBAN LAND USES
- ENVIRONMENTALLY SIGNIFICANT AREAS
- SURFACE WATER
- EXISTING BIKEWAY
- RECOMMENDED BIKEWAY
- ALTERNATIVE BIKEWAY

NOTE: ENVIRONMENTALLY SIGNIFICANT AREAS CONSIST OF AREAS DELINEATED AS ENVIRONMENTAL CORRIDORS, ISOLATED NATURAL RESOURCE AREAS, AND "OTHER OPEN LANDS TO BE PRESERVED" ON THE RECOMMENDED MASTER PLAN (SEE MAP 33).

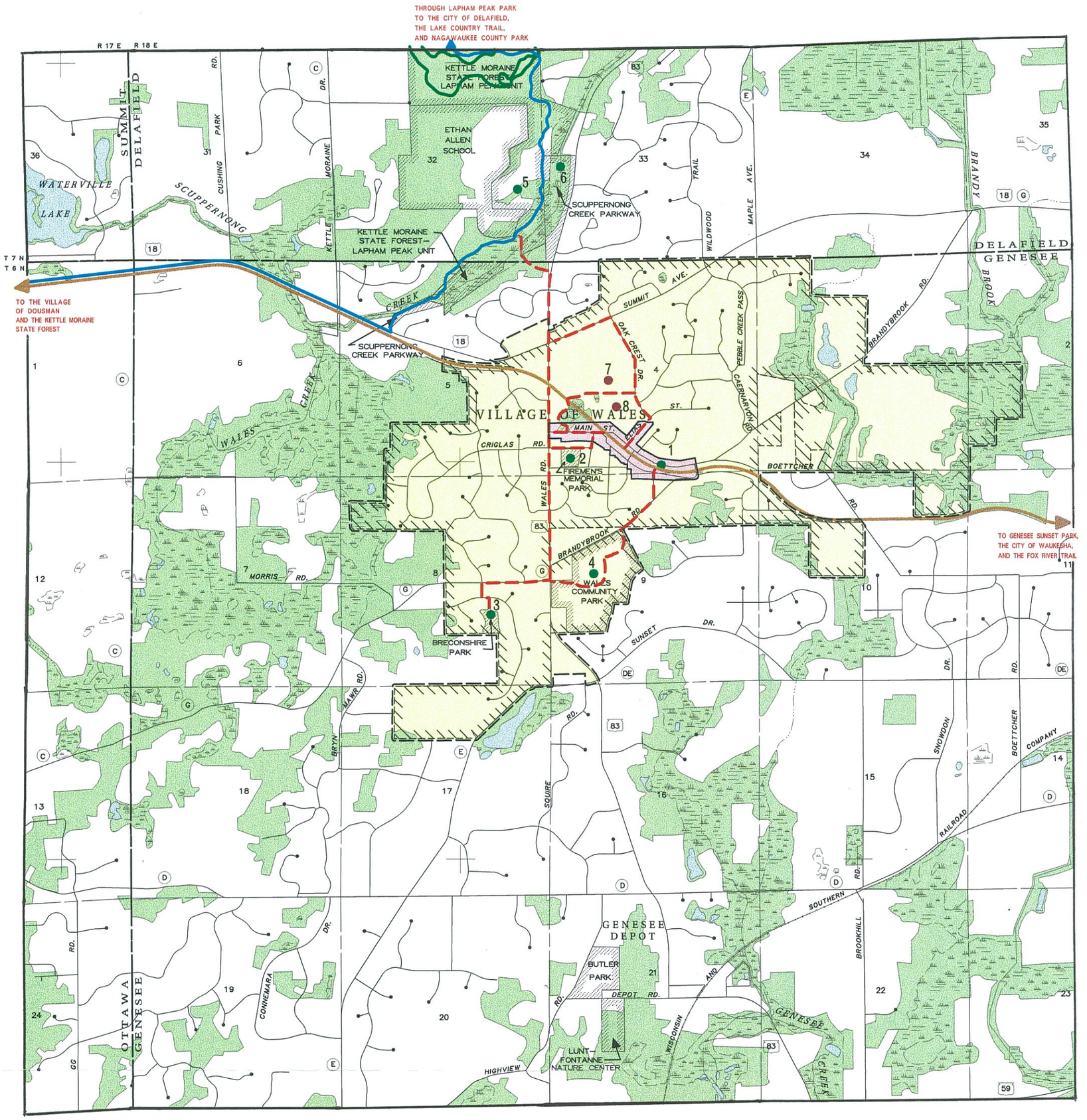
Source: SEWRPC.

GRAPHIC SCALE

0 1500 3000 FEET

Map 36

RECOMMENDED MAIN RECREATION TRAILS FOR THE VILLAGE OF WALES STUDY AREA



- EXISTING 2001 CORPORATE LIMIT BOUNDARIES
- VILLAGE OF WALES PLANNED URBAN SERVICE AREA
- WALES HISTORIC VILLAGE CENTER
- ENVIRONMENTALLY SIGNIFICANT AREAS
- SURFACE WATER
- EXISTING ICE AGE TRAIL
- EXISTING GLACIAL DRUMLIN TRAIL
- EXISTING LAPHAM PEAK PARK TRAIL
- RECOMMENDED MAIN LOCAL RECREATION TRAIL

- SELECTED PARKS AND RECREATIONAL USES
  - 1 GLACIAL DRUMLIN TRAILHEAD
  - 2 WALES FIREMEN'S MEMORIAL PARK
  - 3 BRECONSHIRE PARK
  - 4 WALES COMMUNITY PARK
  - 5 LAPHAM PEAK STATE PARK
  - 6 SCUPPERNONG CREEK PARKWAY
- SELECTED GOVERNMENTAL AND INSTITUTIONAL USES
  - 7 KETTLE MORAINE HIGH SCHOOL
  - 8 WALES ELEMENTARY SCHOOL

NOTE: TRAILS SHOWN PARALLEL TO EACH OTHER SHARE THE SAME TRAIL. ENVIRONMENTALLY SIGNIFICANT AREAS CONSIST OF AREAS DELINEATED AS ENVIRONMENTAL CORRIDORS, ISOLATED NATURAL RESOURCE AREAS, AND "OTHER OPEN LANDS TO BE PRESERVED" ON THE RECOMMENDED MASTER PLAN (SEE MAP 33).

GRAPHIC SCALE

0 2500 5000 FEET

Source: SEWRPC.

Map 37

RECOMMENDED RECREATION TRAILS FOR THE VILLAGE OF WALES PLANNED URBAN SERVICE AREA AND ENVIRONS

- EXISTING CORPORATE LIMITS: 2001
- VILLAGE OF WALES PLANNED URBAN SERVICE AREA BOUNDARY: 2020
- WALES HISTORIC VILLAGE CENTER
- RESIDENTIAL LAND USES
- SELECTED GOVERNMENTAL AND INSTITUTIONAL USES
- SELECTED PARKS AND RECREATIONAL USES
- OTHER URBAN LAND USES
- ENVIRONMENTALLY SIGNIFICANT AREAS
- SURFACE WATER
- EXISTING ICE AGE TRAIL
- EXISTING GLACIAL DRUMLIN TRAIL
- RECOMMENDED LOCAL RECREATION TRAIL

NOTE: ENVIRONMENTALLY SIGNIFICANT AREAS CONSIST OF AREAS DELINEATED AS ENVIRONMENTAL CORRIDORS, ISOLATED NATURAL RESOURCE AREAS, AND "OTHER OPEN LANDS TO BE PRESERVED" ON THE RECOMMENDED MASTER PLAN (SEE MAP 33).

Source: SEWRPC.

GRAPHIC SCALE

0 1500 3000 FEET

in-line skating, roller skiing, and cross-country skiing. It should be further noted that the collector and minor land-access streets within the planned urban service area can generally function as supplementary bikeways connecting to the primary bikeways shown on Map 34 without widening roadways, due to the usually low traffic speed and volume on these streets. Bikeways shown within street rights-of-way may consist of a bicycle route designated on a street or highway, a paved shoulder designated for bicycle use, or a separate paved path located within the street or highway right-of-way. Existing busy streets that are recommended as bikeways should provide bicycle facilities as such streets are reconstructed or resurfaced.[2]

Map 36 shows not only the Glacial Drumlin Trail, but also the location of the existing Ice Age National Scenic Trail and other main recreation trails in the Wales study area, including those in Lapham Peak State Park. The 1,000-mile Ice Age National Scenic Trail is planned to follow the glacial moraines stretching from Door County in northeastern Wisconsin to and through the Kettle Moraine area in Southeastern Wisconsin. As shown on Map 36, about 4.4 miles of the Ice Age National Scenic Trail traverses through the Wales area and near the planned urban service area, thus providing a valuable recreational amenity and opportunity for Village residents.

Ultimately, it is envisioned that trail facilities will connect to other surrounding key recreation attractions, including Nagawaukee County Park, the Lake Country Recreation Trail, South Kettle Moraine State Forest, Lapham Peak State Park, and the Retzer Nature Center, as indicated on Maps 34 and 36. It is recommended that the Village work with surrounding communities, Waukesha County, and the State Departments of Transportation and Natural Resources to insure that, as the trail system is developed, adequate linkages with surrounding trail systems are established. This interlinked network of bikeways and recreation trails would provide the residents of the Wales area opportunities for a longer and wider array of trail-oriented recreational pursuits, as well as safe and convenient utilitarian access to major activity centers.

Environmentally Significant Areas

To effectively guide urban development in the Wales area into a pattern that is efficient, stable, safe, healthful, and attractive, it is necessary to carefully consider the location of the various land uses as they relate to the natural resource base of the area. Locating new development outside environmental corridors and other environmentally sensitive areas will serve to maintain a high level of environmental quality in the Village of Wales and will also avoid costly development problems such as flood damage, wet basements, and failing pavements.

The Village master plan recommends substantial preservation of all remaining environmental corridors, isolated natural resource areas, and other environmentally significant areas. Development within these areas should be limited to required transportation and utility facilities, compatible outdoor recreation facilities, and very low density residential development carefully designed so as to minimize the impact on the natural features. Cluster design concepts are recommended over conventional subdivision design if residential development occurs within environmentally significant areas.

Primary Environmental Corridors

Environmental corridors, more fully described in Chapter III, are linear areas in the landscape that contain concentrations of high-value elements of the natural resource base. Primary environmental corridors contain almost all of the best remaining woodlands, wetlands, and wildlife habitat areas, as well as floodplains and steeply sloped areas where intensive urban development would be ill-advised.[3] The protection of the primary environmental corridors against intrusion by urban development is an important objective of the recommended

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[2]*It is recognized that major bicycle-related improvements, such as the ideal addition of separate bicycle paths, may not be able to be accommodated at the time a street is resurfaced or reconstructed due to cost, space, or topographic constraints. However, consideration should be given to re-striping the street or making other improvements to better accommodate bicycle travel. At least the paving of street or highway shoulders (no less than four feet wide) to accommodate bicycle travel should be accomplished at the time of resurfacing or reconstruction.*

[3]*Primary environmental corridors are at least two miles in length, 400 acres in area, and 200 feet in width.*

Village master plan. Primary environmental corridors occupied approximately 173 acres, or 8 percent, of the planned urban service area in 2000. Table 29 indicates that under the recommended plan these corridors would occupy about 141 acres, or 7 percent, of the planned urban service area. This decrease is attributed to locally committed urban development. The remaining primary environmental corridors located in the eastern and western parts of the planned urban service area should, to the maximum extent practicable, be preserved in essentially natural, open uses or maintained for resource preservation and limited recreation purposes. In some cases, very low-density residential development of no more than 0.2 dwelling units per net acre, equivalent to one dwelling unit per five acres, compatible with the preservation of the corridors, may be permitted to occupy corridor lands. Such development should utilize the cluster design concept and, accordingly, should be sensitively integrated with the natural features on the site.

Isolated Natural Resource Areas

Isolated natural resource areas consist of areas with important natural resource values which are separated geographically from environmental corridors. The four isolated natural resource areas in the planned urban service area are wetland and woodland tracts at least 200 feet wide and five acres in area. These areas, under the recommended plan, would occupy about 57 acres, or 3 percent, of the planned urban service area. This is a decrease of about 13 acres, or 19 percent, from the 2000 total of about 70 acres due to a locally committed residential development in a woodland area. The plan recommends that remaining isolated natural resource areas be preserved in essentially natural, open space uses whenever possible, since these areas lend themselves for certain uses, such as parks, drainageways, or stormwater detention or retention areas, and sometimes serve as the only available wildlife habitat in an area.

Other Open Lands to be Preserved

The plan also recommends that other small areas containing important natural resource values be preserved. Even though these areas do not currently qualify as part of an environmental corridor or isolated natural resource area, they are environmentally significant in the sense that they contain soils poorly suited to urban uses, wetland vegetation, steep slopes, or floodplains; or provide buffer areas between incompatible land uses. These areas are either located adjacent to lands classified as environmental corridor and isolated natural resource areas or are small isolated areas less than five acres in size. Under the recommended master plan, such areas would occupy about 63 acres, or 3 percent, of the planned urban service area, of which a large portion, about 60 acres or 95 percent, would be located within the planned golf course community, The Legend at Brandybrook. Similar to isolated natural resource areas, the preservation of these features may provide the only available wildlife habitat in an area and lend unique character and natural diversity to a community. As natural vegetation develops on some of these undisturbed areas, the re-vegetated land may eventually be reclassified as environmental corridor or isolated natural resource area.

Arterial Street and Highway System

Transportation facilities, especially the arterial street and highway system, are among the most important land use elements influencing the spatial distribution of development in a community. The regional transportation system plan details the recommended arterial street and highway system that would serve the probable future traffic demands within the Village of Wales study area through 2020 as graphically depicted on Map 24 in Chapter V. The Village master plan recognizes and supports the regional transportation system plan with regard to its general intent to safely and efficiently move traffic within and through the Village of Wales study area. The master plan incorporates and reaffirms the recommendations of the regional transportation system plan for the design year 2020 with regard to improvements within the study area, which includes the resurfacing or reconstruction of CTH's D, E, and DE to provide essentially the same capacity that currently exists; and the widening of STH 18 east of STH 83 to accommodate four lanes and the widening of STH 83 north of CTH DE to accommodate four lanes to provide additional capacity.

The Village, however, wishes to reserve judgment on the transportation recommendations indicated as a "note" on Map 24 which specifies improvements that would be necessary under "buildout" conditions of the adopted Waukesha County development plan. The additional improvements noted on this map would include widening USH 18 west of STH 83 to accommodate four lanes and widening STH 83 north of USH 18 to accommodate six

lanes and south of CTH DE to accommodate four lanes. The Village wishes to analyze the results of future traffic studies and the outcome of public meetings related to these improvements, including the current improvement study being conducted by the Wisconsin Department of Transportation (WisDOT) for STH 83 from STH 16 in the Village of Hartland to CTH NN in the Village of Mukwonago. The Village has already expressed transportation and design-related comments as discussed in the design recommendations later in this chapter to WisDOT for their consideration in this traffic planning process. The Village requested that WisDOT study the potential realignment of CTH G at its intersection with STH 83 in order to increase or eliminate the jog and, thereby, improve traffic safety, especially if STH 83 is planned to be widened to four lanes.

DESIGN RECOMMENDATIONS

The Village Long-Range Planning Committee requested, based in part on the results of a community survey, that this plan provide general design guidelines for enhancing the Historic Village Center and other urban development within the Village urban service area. While it is not the purpose of the master plan to provide detailed plans for subareas and precise development and redevelopment recommendations, which would require structural condition surveys, commercial market analyses, and site- or building-specific analysis and engineered designs, it was determined that the plan should set forth generally applicable design recommendations that would help guide development in the Village. These guidelines would also be useful to public officials in the review and evaluation of site-specific development and redevelopment proposals and thereby assist in implementing the Village master plan.

General Recommendations

During the planning process, potential design improvements as well as design deficiencies were observed within the Village and environs. These observations indicated that several elements of design should be addressed within the Village, including elements relating to the Historic Village Center, streetscaping, utility poles and lines, offsite landscaping, architectural compatibility, and certain transportation related factors. Based, in part, on the design guidelines set forth in Appendix C, specific recommendations for improving identified design elements and addressing certain design problems are herein provided. The appearance and proper design of urban developments and redevelopments within the Village, consistent with the suggested design recommendations, will help to produce over time a more attractive community, and will help to stabilize or increase real property values to the advantage of both the community and to individual property owners.

Historic Village Center

Historic Resources

The concentration of unique old buildings located in and near the Historic Village Center is not fully utilized as effectively as possible as a source of community identity. By enhancing this resource and the Center, a positive image of the Village can be projected upon pedestrians, bicyclists, and occupants of motor vehicles traveling through the Village Center. The Historic Village Center would serve as an important focus of identity for the Village. Even though the Village identifies its "old downtown" area as the Historic Village Center, the boundaries of the Center have not been delineated. Map 19 in Chapter IV attempts to define the Center's boundaries to help provide a more precise sense of location. Map 20 further indicates that this Center contains 16 of the total 24 potential historic sites that existed in the Village in 2001, consisting primarily of historic homes. The Center could also serve as a safe haven to relocate significant historic buildings and accessory structures from the surrounding Welsh Hills area that may otherwise be demolished due to disrepair or proposed development.

It is recommended that the Village should conduct an intensive communitywide inventory of historic resources in conformance with accepted national standards for surveying such resources, with assistance from a qualified professional, to further refine historic sites identified on Map 20 in Chapter IV, including those in the Historic Village Center. The identification of significant historic places and the delineation of a historic district, if any, should also be evaluated for possible inclusion in the National and State Registers of Historic Places. If registered, such special status would help to qualify proposed historic rehabilitation projects for potential tax incentives offered by the State and Federal governments. Any city or village containing property listed on the National or State Registers of Historic Places must enact a historic preservation ordinance to protect and preserve such

resources. The Village of Wales adopted such an ordinance in 1996. Chapter VI and Appendix C set forth basic historic preservation standards and design guidelines to help preserve the integrity of historic resources. Opportunities for experiencing the designated historic features in the Historic Village Center could then be promoted by identifying and describing those features with explanatory plaques along a marked historic trail. This trail could be established as part of the recreational trail network for the Village of Wales shown on Map 37.

Design

By designating a Historic Village Center and improving its streetscape scenery, a distinctive Village identity could be established. Any proposed new business developments within the Historic Village Center should be in keeping with the predominantly historic and residential character of the Center, and may include compatible specialty stores, small office and professional service-type businesses, and home occupations. All proposed developments should adhere to the design guidelines established for the Center in Appendix C to ensure that, for example, any proposed commercial or mixed-use residential-office buildings will resemble the residential architectural character of the area with pitched roofs and ornate façades, as opposed to concrete-block buildings with flat roofs that are devoid of any architectural style. Specifically, the architectural characteristics of buildings in the Center should include pitched roofs, preferably with a varied roofline such as gable with dormers; with facades comprised of natural wood, fieldstone, limestone, brick masonry, or a combination thereof; and well-defined entryways. Such buildings, with attractive foundation landscaping, should continue to be located close to existing sidewalks or streets as an attempt to retain the pedestrian-oriented atmosphere as opposed to setting buildings in the rear with parking in front, which would disrupt the pedestrian scale of the Center.

The character of the Wales Historic Village Center is also defined largely by the presence of the popular Glacial Drumlin Trail, including its established trailhead, with mostly open space between the trail and Main Street. The space between the trail and James Street could accommodate narrow buildings with cedar-shingled, gable roofs over façades comprised of light earth tone colors or with stone such as of fieldstone or native Lannon stone. The Village should consider relocating historic buildings in the Welsh area, that would otherwise be destroyed, to this narrow strip of space, since less open land or lawn would be consumed for parking purposes in comparison with that required for more intensive uses. Alternatively, historic buildings could be located elsewhere in the Center on redeveloped lots, or could be relocated to the open space between the trail and Main Street; however, this area should continue to remain largely open space.

Complementary streetscaping should be provided for the Historic Village Center that reflects the overall design theme desired by community residents and business owners. The streetscape façade theme should be continued along the entire length of Main Street, between Wales Road (STH 83) and Brandybrook Road, and possibly extended along James and Elias Streets. This theme may consist of a small "country-village" setting, a country theme with a contemporary flair, or a mixed country and Welsh or Stonehenge design theme supplemented with attractive landscaping. The Center could be established, for example, to reflect the Welsh or Celtic heritage of the area with significant historic buildings, including those from the surrounding Welsh Hills relocated to the Center, to create a historic settlement that may be named the Historic Welsh Village or Community. Historic photographs, including those from the Wales of Great Britain, are an excellent means of identifying a potential theme for the Center. Discordant elements, such as the clutter of poles and wires, and lack of landscaping, even if historically accurate, should be avoided.

Streetscaping features should include trees, shrubs, and flowers that should be planted along the street façades in the Center to enhance its attractiveness. "Street features," such as ornate signs, benches, bollards, or a clock tower could also be installed. Decorative street lamps, with colorful banners containing the red dragon and/or flowers in hanging pots, at pedestrian scale and of a design compatible with the selected theme, would further enhance the image. Articulated crosswalks with decorative pavement should be provided at the intersections of Main Street with Wales Road and Elias Street, and potentially at other intersections along James Street. Figure 3 identifies a few design features that could be incorporated into the theme for enhancing the Center. The Center may, for example, include a country setting with split cedar fencing integrated into natural landscape beds comprised of native trees, shrubs, and ornamental grasses. In fact, the Glacial Drumlin Trail could be better spatially identified by lining both sides of the entire length of the trail with such open fencing or by defining the ends of the trail at its

intersection with streets with a archway structure, as discussed later, or cedar fencing consisting of a "snake" or "post-and-rail" style, as illustrated in Figure 3. Walls in the Center may include the use of a typical fieldstone wall with thick mortar joints, or one that is carefully pieced together like a puzzle thereby revealing only a thin layer of mortar between fieldstones, as shown on the historic Ice House built by master mason Dave Edwards. Another uniquely designed wall that could be used may consist of native limestone—often referred to as "Lannon" stone—with like slabs set upright on top of the wall, similar to one in front of the Village Hall. Limestone columns or pillars capped with similar stone set upright to form a half pinecone shape, as illustrated in Figure 3, could be incorporated into the walls. Even a piece of the distinct "Stonehenge" or dolmen character may be integrated into the theme by using large slabs of granite or native Lannon stone that may serve an artistic and/or a practical function such as a bench, trellis, or sculpture, as shown in Figures 3 and 4.

Ultimately, all design features for the Historic Village Center should be representative of a design theme desired by the community. Proposed developments and redevelopments should help revitalize the Historic Village Center by incorporating the aforementioned design elements. The Village has already been working towards improving the vitality of its Historic Village Center. With continuing prudent planning and effective plan implementation, the positive characteristics of the Center can be further enhanced.

Streetscape

General

Streetscape improvements should be applied, not only in the Historic Village Center as discussed above, but also along other streets located throughout the Village. Even though the design theme for the Center may not be carried out to the same extent in other areas of the Village, streetscaping features such as street trees, distinctive street signs with logos, and attractive street and traffic lights are recommended. Landscape plantings, especially trees, along streets and on abutting properties can help to define the street lines visually, add texture and color, and provide shade and screening. Cul-de-sac turnarounds should include center landscaped islands containing such trees. Street trees may be placed on gentle slopes with proper bracing for reinforcement. If the Village is concerned with the maintenance of trees within the street right-of-way, the street trees could be located on adjoining lots within five or ten feet of the street right-of-way where the property owners would maintain them. The streetscape may also include defined attractive gateways or main entryways as discussed below. If the provision of distinctive style streetlights (similar to those eventually selected for the Historic Village Center) throughout the Village is not practical, the traditional style of tall streetlights could be made more attractive by using colors, such as black or green, instead of the bare metal color. As another alternative, the poles could be colored black or green while the extended arms with the illumination head could remain silver. The style or color selected for the street lights should be emulated in the poles for street signs and traffic signs and signals. The overall streetscape image of the planned urban service area should be brought into accord with the design guidelines set forth in Appendix C and the design recommendations discussed herein.

Wales Road (STH 83) and Summit Avenue (USH 18)

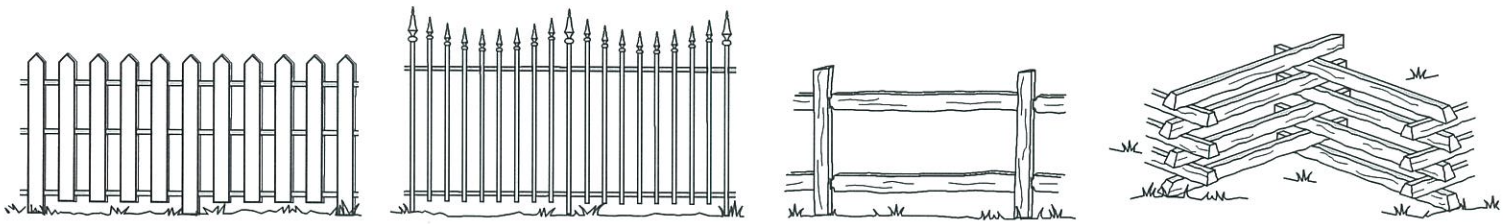
The Village recognizes that arterial streets throughout the Region serve a function beyond the Village limits; however, such arterials located within the community are of paramount interest to the Village from both a safety and aesthetic perspective. Therefore, proper streetscaping is important along the two major arterial highways that serve as the main "gateways" funneling traffic into the Village, Wales Road (STH 83) and Summit Avenue (USH 18). The Village recognizes that these two arterials may be converted to four-lane divided highways; however, the Village has significant concerns on the impact such a widening will have on the safety and image of the community since they cut through the Village.

Village officials indicated that if such highway improvements occur, a number of factors should be considered in the design to ensure that safe and attractive highways are established, including the provision of: boulevard-type arterials with raised landscape medians as opposed to open asphalt, two-way center-turn lanes; attractive streetscaping such as street trees, medianscaping (as illustrated in Figure C-16 in Appendix C), ornate raised channelizing islands, and articulated crosswalks with decorative pavement as opposed to unattractive plain asphalt; safe pedestrian/bicyclist crossings with defined crosswalks at the intersections of Wales Road with Summit Avenue and Brandybrook Road (CTH G), and possibly at the intersections of Wales Road with one or

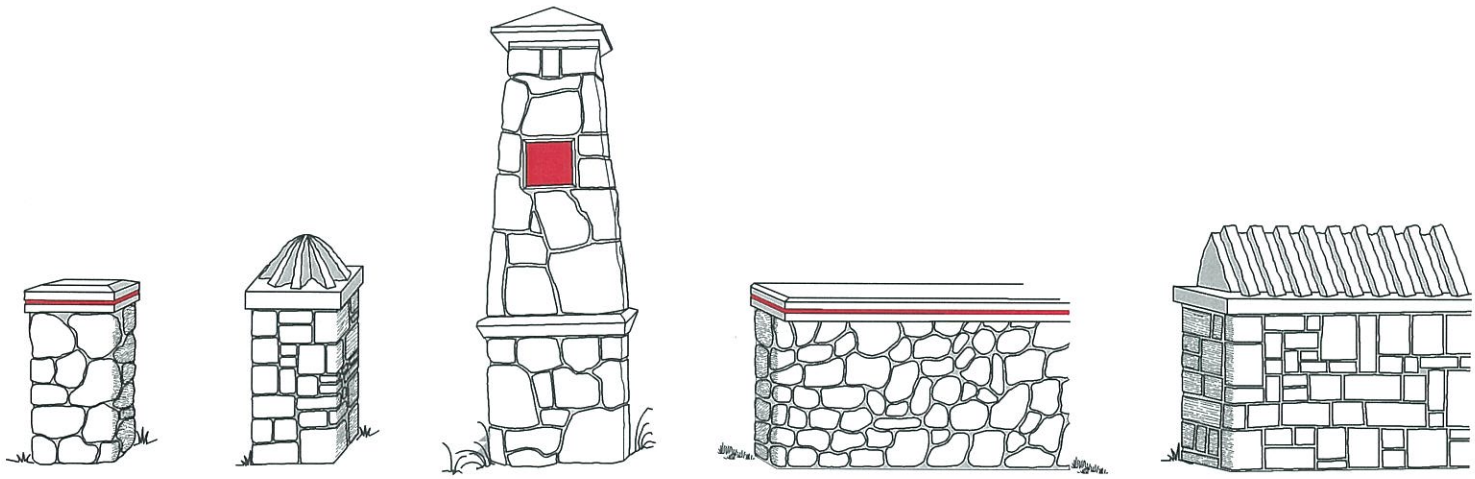
Figure 3

POTENTIAL DESIGN FEATURES FOR THE HISTORIC VILLAGE CENTER

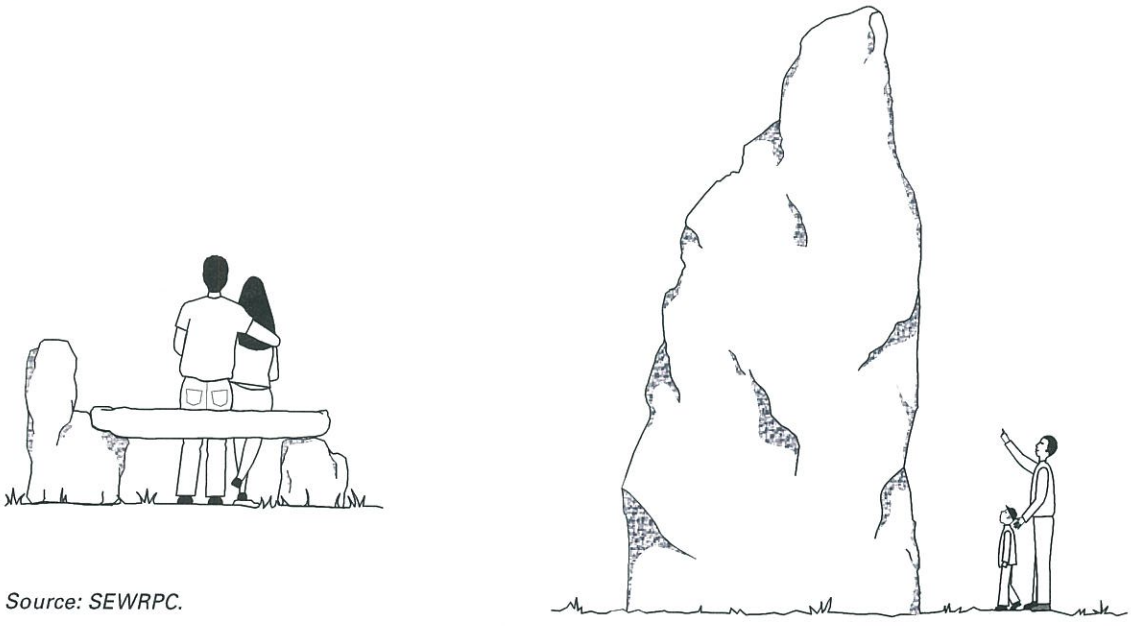
A. FENCES



B. WALLS AND COLUMNS/PILLARS



C. OTHER FEATURES



Source: SEWRPC.

more Village streets, and the intersections of Summit Avenue with Oak Crest Drive and Pebble Creek Pass/Wildwood Trail; potential signalized intersections where Wales Road intersects with other Village streets and where Summit Avenue intersects with Oak Crest Drive, if warranted based on traffic volume and turning movements; separate shared pedestrian/bicycle paths on desirably both sides of Wales Road and Summit Avenue, or at least on one side; and ornate or colored traffic light poles and street lights, possibly with colorful banners on streetlights at least at street intersections. To help reduce the perception that the Village is split in half, the existing crest of Wales Road defined by the bridge crossing over the Glacial Drumlin Trail, located south of its intersection with Summit Avenue, should be lowered to improve sight distance from access points along this segment and to reduce the visual perception of a physical barrier or a "hill" that divides the west side of the Village from the east side. Prior to any highway design activities, the Village and the government agency that has jurisdiction over the arterials concerned should work closely together to address transportation related elements of mutual concern.

Utility Lines and Poles

The overhead wires and supporting structures of the electric power and telephone communication facilities create a sense of visual clutter along streets within the Village. One possible solution for this problem is to bury utility lines. Another solution is to relocate these lines and supporting poles to less visible areas, such as along the rear of properties. It is recommended that preferably all overhead utility lines within the Village planned urban service area be buried, especially along Wales Road (STH 83), Summit Avenue (USH 18), Main Street, and James Street, which function as "gateways" or "main entryways" leading traffic into the community and the Historic Village Center.

Signs and "Gateways"

General

Most freestanding advertising signs in the Village are provided with little or no landscaping around the base of the sign. By providing flower beds, colorful shrubs, and flowering trees in an elevated plant bed with decorative mulch at the base, without obstructing the face of the signs, their legibility and appearance could be improved as illustrated in Figure C-20 of Appendix C. Signs should contain a decorative structural base constructed of material similar to or compatible with the building materials of the principal structure on a site. Generally, the fewer the words on sign faces, the more comprehensible will be the signs. Large type-face lettering properly spaced is more easily read from long distances and from moving vehicles. Main "entryways" into the Village, Historic Village Center, and parks should also be well-defined with attractive signs and/or landscaping to provide a sense of direction and identity, as illustrated in Figure C-17 in Appendix C. The design of entryways should be representative of the character of the area. Monument signs—sometimes called ground signs—are preferred over pole signs.

Village Welcome and Wayfinding Signs

Village "welcome" signs are lacking in certain strategic locations. Such signs should contain large lettering and be situated at key roadside locations where the sign is readily visible and legible by occupants of motor vehicles entering the Village of Wales along major arterials. Specifically, "welcome" signs indicating that one is entering the Village should be provided near the southwest corner of the intersection of Wales Road (STH 83) and Summit Avenue (USH 18); the northeast corner of the intersection of Wales Road and Brandybrook Road; the northwest corner of the intersection of Summit Avenue and Pebble Creek Pass/Wildwood Trail; and the southeast corner of the intersection of Summit Avenue and Moraine View Drive or N. Taliesin Road. These signs should be low monument signs, usually no more than six to eight feet in height, on a decorative structural base surrounded by ornate landscaping and situated outside traffic vision clearance zones. If Wales Road (STH 83) and Summit Avenue (USH 18) are to be reconstructed as four-lane divided streets with a raised landscape median, then the "welcome" signs and attendant landscaping should preferably be located in the center of these medians located near the aforementioned intersections, provided that traffic safety standards can be met. The Village should continue to use the unique bright and colorful street signs with the red dragon icon, and may wish to provide additional vibrant wayfinding or icon/symbol signs, containing similar color graphic features as the street signs, to direct traffic to public facilities or major activity centers such as schools, parks, and the Historic Village Center.

Figure 4

POTENTIAL "GATEWAYS" FOR
THE HISTORIC VILLAGE CENTER AND THE GLACIAL DRUMLIN TRAIL

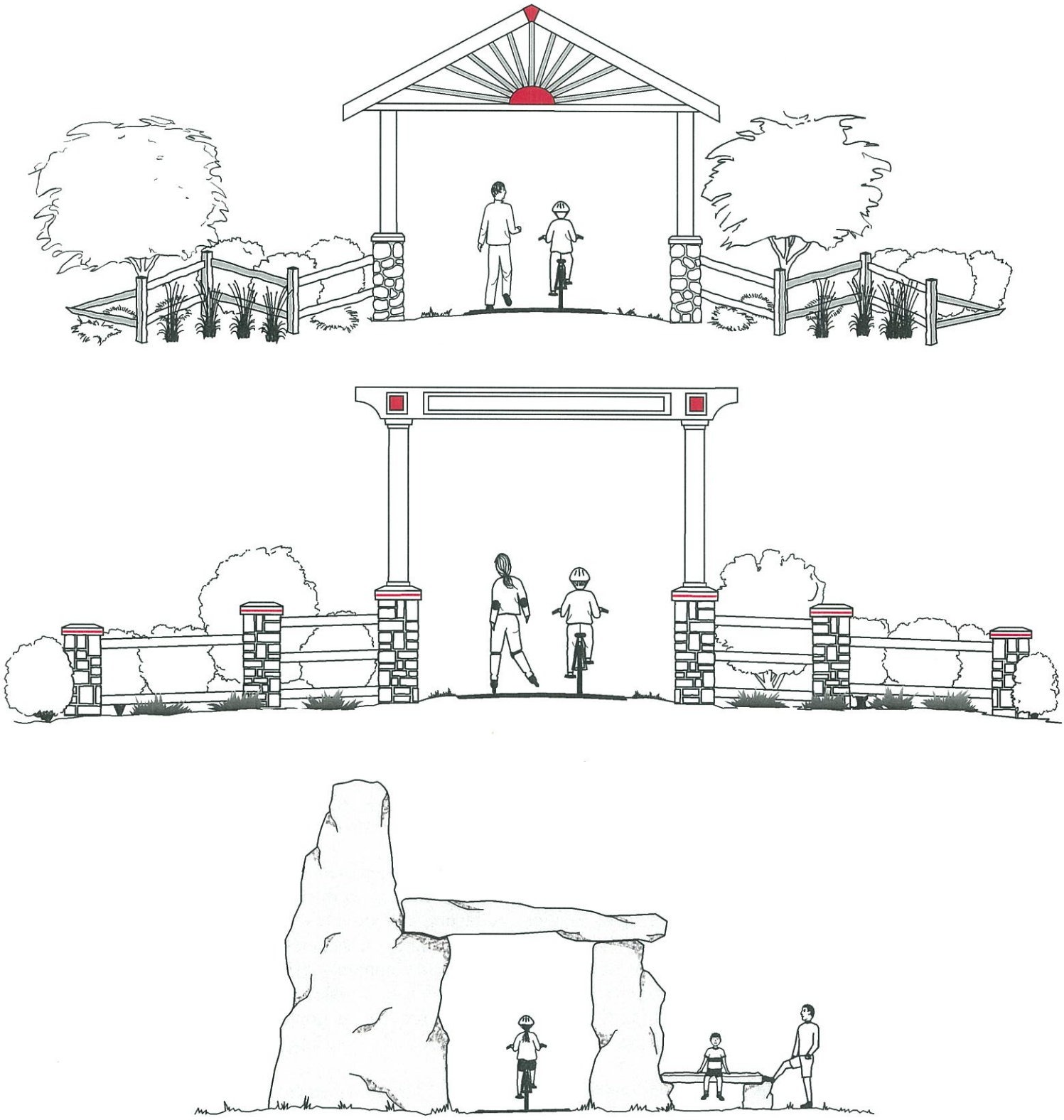
A. POTENTIAL DEFINED GATEWAY AT THE INTERSECTION OF WALES ROAD (STH 83) AND MAIN STREET, WHICH LEADS TO THE HISTORIC VILLAGE CENTER AND THE GLACIAL DRUMLIN TRAILHEAD

Historic Village Center

Separate "gateway" or main "entryway" signs with attractive landscaping reflecting the design theme for the Historic Village Center should also be provided near the intersection of Main Street with Wales Road and Brandybrook Road. Alternatively, the gateway could be defined without signs by installing ornate walls or simply decorative pillars or columns on each side of Main Street at these locations to signify that a unique place exists beyond this point, as illustrated in Figure 4. Additional wayfinding signs could be provided along Wales Road and Brandybrook Road for informing traffic, in advance, of this upcoming entryway leading into the Center as well as the Glacial Drumlin Trailhead.

Figure 4 (continued)

B. POTENTIAL DEFINED GATEWAYS FOR THE GLACIAL DRUMLIN TRAIL IN THE HISTORIC VILLAGE CENTER



Source: Fischer, Fischer, and Theis, Inc. and SEWRPC.

Users of the Glacial Drumlin Trail are also greeted by a historic overpass bridge—the "Big Wooden Bridge"—on the east side of the Village which marks the highest point between Milwaukee and Madison on the former Chicago and North Western rail line, with its surrounding landscape called the "Big Cut," because of the large amount of past excavation work. In essence, this bridge and the Wales Road (STH 83) overhead bridge on the west side of the Village could act as symbolic archways or "gates" of the Village that eventually lead to the heart of the Historic Village Center. Accordingly, the area at the base of these two bridges and near the trail could be improved with an attractive "welcome" sign and/or landscaping set in large planters or terraces with retaining walls constructed of railroad ties, fieldstone, Lannon stone, or any combination thereof to signify to trail users that they are entering or leaving a point of destination. Special events and festivities could be advertised by the temporary use of large colorful banners elevated and extending across these two overhead bridges. The design of defined entryways should be representative of the overall design theme desired by the Wales community.

As an alternative, archways could be provided simply as symbolic gateway structures without signs, as illustrated in Figure 4, to signify to trail users that they are entering the Historic Village Center, such as at the intersection of Main Street with the Glacial Drumlin Trail and also immediately east of the established trailhead, just where the trail "opens up" into the Center. Such gateways may be defined with ornate trellises, tall decorative fieldstone or Lannon stone pillars or columns, or even monolithic slabs of granite or native Lannon stone set upright with a single horizontal lintel across the top (Stonehenge or dolmen characteristic), as illustrated in Figure 4. The Village should work with the Wisconsin Department of Natural Resources on establishing such gateways within the trail right-of-way.

The highly popular and heavily used Glacial Drumlin Trail presents an economic opportunity for the Village to tap into the potential business that could be generated from tourists or trail users. For example, colorful maps highlighting the location of services and attractions in the Wales area should be posted at the trail rest stop (trailhead) and by the STH 83 bridge to direct trail users to points of interest such as existing historic landmarks, bakeries, restaurants, the bed-and-breakfast establishment, the Pick-n-Save grocery store, and the Le Duc ice cream shop, as well as others that may develop in the future such as coffee/sandwich shops, art galleries, trailside sporting shops, and specialty stores. The map may further indicate to trail users their proximity to schools, community parks, Lapham Peak State Park, the Ice Age National Scenic Trial, and Scuppernong Creek Spillway.

Parking, Service, and Outdoor Storage Areas

Many parking lots in the Village lack adequate landscaping and are not well-defined, creating unattractive "seas of asphalt." The function and aesthetics of parking, service, and outdoor storage areas can be improved by providing landscape islands in the interior of the parking lots and at the end of parking rows; by screening parking lots, loading/unloading service areas, and outdoor storage areas from adjacent residential areas, public streets, and the Glacial Drumlin Trail; by requiring protective curbing around landscape areas; and by requiring permanent paving with striping for parking spaces and, as necessary, "wheelstops" or low "bumpers." Where space is limited for screening parking lots within the Historic Village Center, a picket fence, ornate wrought-iron fence, or low decorative wall could be provided with flowers or ornamental grasses at the base.

It is important to note that the provision of landscape islands is recommended, not only for aesthetic reasons, but also for functional and safety purposes. Islands located at the end of parking rows separate parked vehicles from driveways; provide an indication of the parking orientation and layout; and provide visual clearance areas, except for the minor obstruction of a tree trunk or light pole located in the island, for vehicles driving out of the general parking areas onto adjacent driveways. Islands with landscaping should maintain a visual clearance zone between the heights of 2.5 feet and 10 feet above the mean pavement grade adjacent to said islands. Any plants proposed in these islands should be salt-tolerant. Figure C-11 in Appendix C provides parking lot design standards, and Figures C-6 and C-21 illustrate potential landscaping that could be provided for parking lots.

In some cases, the number of parking spaces and the width of traffic aisles provided for individual land uses may be inadequate; in other cases excessive. Too few parking spaces with inadequate traffic aisles create an inconvenience to tenants or customers and may encourage vehicles to park on public streets thus increasing the potential for pedestrian and vehicular traffic conflicts. Too many parking spaces and excessively wide traffic

aisles convey inefficient use of lands that could otherwise be converted to attractive landscaped areas. Parking needs and parking lot layouts should be carefully examined for any proposed development or redevelopment projects in order to assess compliance with good design practices.

Buffers and Perimeter Landscape Strips

The provision of adequate and attractive perimeter landscaping strips, which may also function as buffers with plantings along the boundaries of many individual sites, is lacking within the Village. In some areas, perimeter landscaping strips are not provided and entrances and exits to parking lots, such as along James and Universal Streets, are not well-defined. Perimeter landscaping strips located around a parcel provide space for attractive landscaping, screening from incompatible land uses, and filtration of stormwater runoff. These strips further clearly define the boundaries and entrances of a property and provide separation between parking lots and public street rights-of-way. Perimeter landscaping strips, however, are not necessary for adjoining sites that share entrances, traffic aisles, and parking lots at a common lot line.

A buffer may be defined as a landscape area that surrounds a land use and reduces or blocks visual nuisances, air and noise pollutants, or other negative factors associated with that use. Buffers can benefit the Village in protecting property values by separating dissimilar land use types and intensities visually and physically. The Village zoning ordinance does not contain specific provisions for such buffer areas and attendant landscaping. Buffers may represent a variety of features, including earth berms with plantings, fences and walls with plantings, wide open spaces, and grade separations in order to effectively buffer between dissimilar land uses. Landscaped buffer strips should be provided between new urban developments, as well as existing redeveloped areas, and any incompatible adjacent land uses. Figure C-18 in Appendix C shows alternative landscaping that could be provided in such buffer areas.

Building Foundation Landscaping

A significant number of commercial, industrial, and multi-family building elevations in the Village that are visible from public streets and adjacent to customer and tenant parking lots do not provide sufficient landscaping at their foundation. These highly visible building elevations should be landscaped along the foundation with decorative mulch, flowers, shrubs, and trees to complement and enhance the aesthetics of the building as well as of the site.

As illustrated in Figure C-19 of Appendix C, the planting beds do not necessarily have to be narrow linear strips located directly against a building, but may consist of large planting beds located at or near the dripline of roof overhangs. Building foundation plantings, including low planters, also help break up the monotony of tall and long continuous building walls.

Architectural Compatibility of Buildings and Related Structures

A number of existing buildings and related structures in the Village, including those in the Historic Village Center, exhibit features that do not complement the neighboring buildings and structures. The architectural design guidelines established in Appendix C state that, although building façades of two adjacent buildings may be different, their overall appearance should be made compatible through the proper use of structural elements, including the building shape and proportion, the placement of openings such as doors or windows, and the placement of signs. Street trees and other general landscape materials that complement the buildings should also be installed along the street façades of these buildings.

Appendix I contains general architectural review guidelines that could be applied to the Village. More detailed architectural design guidelines for the Historic Village Center are provided in Appendix C, in order to retain the Centers' historic and residential character. As noted in Appendix C, any historic preservation actions should be undertaken in accordance with the standards promulgated by the U.S. Department of the Interior for all forms of historic preservation including acquisition, protection, stabilization, preservation, rehabilitation, restoration, and reconstruction of significant historic features, including buildings. In addition, any historic features listed on the National or State Register of Historic Places must be protected and preserved in accordance with a historic preservation ordinance enacted by the Village.

Maintenance

The proper maintenance of buildings and other structures, as well as landscaping, will help retain the aesthetic appeal of buildings and grounds within the Village over time. Buildings, fences, walls, and other structures should be kept in good condition and proper appearance by performing such routine maintenance tasks as painting, staining, repairing, replacing, and cleaning when necessary. Building code compliance and architectural review requirements are methods for ensuring that structures are properly maintained.

Landscaping should be provided only if it will be properly maintained by watering, pruning, mowing, edging, staking, fertilizing, spraying, and replacing when necessary. To ensure that these features are properly installed and maintained, upon submittal and approval of landscape plans for urban development or redevelopment proposals, a comprehensive maintenance schedule and a bond should be required to ensure that the initial installation and maintenance of landscape materials is in accordance with the approved plans.

Specifically, plants selected for use in certain areas of the urban environment, such as parking lots and along streets, should be salt-tolerant. Stone mulch with underlying fiberlike weed barrier is recommended to be used in lieu of grass in certain areas where heavy pedestrian and vehicular traffic is present or where the possibility of watering is limited. If grass is proposed in landscaped areas, it should be properly maintained and protected from pedestrian and vehicular traffic, otherwise an "all-weather" surface material is recommended, such as a decorative pavement surface or mulch with underlying weed barrier. Excessive paving of open space areas with hard-surface materials such as plain asphalt or concrete should be discouraged. Flower beds should be provided only if provisions are made for proper maintenance. Decorative stone or bark mulch in plant beds should be kept weed-free and properly replenished over time.

Vehicular Access Points

Excessive driveway access points along arterial streets, such as Wales Road (STH 83) and Summit Avenue (USH 18), within the Village add to the potential for traffic conflicts and accidents and decrease the traffic capacity and safety of the streets concerned. Driveways along major arterial streets, insofar as is practicable, should be reduced by eliminating driveways or combining driveways to establish shared driveways between adjoining properties. Access along major arterials can be further controlled by requiring no-access easements along the street frontage of proposed developments. Table C-1 in Appendix C specifies the minimum spacing that should be provided between driveways located along arterial streets. As urban development or redevelopment occurs along arterial streets, the Village should attempt to reduce or limit the number of driveways.

The function of major arterial streets can be further improved by ensuring that private driveways as well as public streets are located at sufficient distances from the intersections of arterial streets with other streets. Within certain areas of the Village, private driveways or streets are located too close to such intersections. To the extent practicable, these separation distances should be increased. As discussed in Appendix C, the distance between new direct public or private access and an arterial street intersection should be at least 115 to 230 feet, and preferably 250 feet where parcel size permits. The jog (off-set intersection) where Brandybrook Road (CTH G) intersects with Wales Road (STH 83) at two separate locations should be analyzed to determine if the distance between those intersections should be increased, or if the connection across the intersecting street should be continuous in alignment, thereby avoiding a jog in the flow of traffic.

Pedestrian, Bicycle, and Recreational Trail Facilities

The Village should provide pedestrian walkways, bikeways, and trails that would serve to link important historic, recreational, and scenic areas. Pedestrian circulation is typically provided by asphalt paths or concrete sidewalks along certain existing street rights-of-way parallel to the street pavement and street-facing building façades within the Village. As the community continues to develop, a need will arise for safe pedestrian and bicycle crossings at major arterial street intersections, such as the intersections of Wales Road (STH 83) with Summit Avenue (USH 18), Brandybrook Road (CTH G), and Sunset Drive (CTH DE). Handicap ramps, pedestrian crossing lights, and articulated crosswalks at these intersections will improve safety for pedestrians and bicyclists. In addition, pedestrian/bicycle paths or paved shoulders for bicyclists should be provided along the aforementioned streets and, at least, the existing Universal Street and Main Street, which travels through the heart of the Historic Village

Center. Bicyclists can ride on collector and minor land-access streets without widening such streets, since these streets usually accommodate low volumes of vehicle traffic traveling at slow speeds.

As noted earlier in this chapter, trail-oriented facilities are recommended to be provided for both utilitarian and recreational purposes. The Village should prepare a comprehensive trail facility plan for pedestrian and bicycle in order to identify the specific location and type of such facilities to be provided throughout the Village. These facilities should provide safe pedestrian and bicycle access to all land uses of neighborhood and community wide importance such as schools, parks, shopping areas, and the Historic Village Center, including the Glacial Drumlin Trail. Bicycle parking devices could be provided in the aforementioned locations to help promote the Village as a "bicycle-friendly" as well as a pedestrian-oriented community. As shown on Maps 34 through 37, a network of trails is recommended that traverses the Wales area linking residential areas with each other and with major activity centers and significant natural areas. These trail-oriented facilities would be a part of a larger system of trails for the Wales area, including connections to the Ice Age National Scenic Trail, the Wooly Mammoth Bike Trail (also referred to as the Ice Age Bike Trail), and the Lake Country Recreation Trail.

Positive Attributes

The Wales area, including the Village, exhibits many assets. Some positive attributes can be enhanced and better utilized to improve the attractiveness of the Village. The growing community with its heavily traveled arterials and surrounding major attractions, such as Lapham Peak State Park, Nagawaukee County Park, Retzer Nature Center, and Kettle Moraine State Forest, along with the unique natural features of the area, has a high potential to project a very positive image to the public. Since Wales Road (STH 83) and Summit Avenue (USH 18) are perceived as the major arterials of the Village, these arterial streets should project attractive streetscape façades to present a positive image of the Village to people visiting the community. The Historic Village Center should continue to be enhanced, as discussed earlier, to realize its full potential as a major focal point of the Wales area with its concentration of historic buildings and the popular Glacial Drumlin Trail. Improvements to such visual elements can be used to create a more pleasant environment in which to live and work.

The Village is also served by the Kettle Moraine School District, which has the highest percentage of schools of any district in Wisconsin that have received coveted national recognition as a Blue Ribbon School. All of the District's schools were selected by the United States Department of Education-Recognized School of Excellence Program to receive this prestigious education award for their overall excellence in leadership, teaching, curriculum, student achievement, parent involvement, and community support. Two of the six schools in the District—Kettle Moraine High School and Wales Elementary School—are located in the Village of Wales.

In addition to the cultural attractions of the area, distinct natural features exist throughout the Wales area. Unique glacial land forms in the area include drumlin fields, the interlobate glacial moraine, and outwash plains with kames, kettles, and eskers in the Kettle Moraine State Forest. This unique rough and hilly terrain contains naturally attractive vegetation and meandering waterways, including Scuppernong Creek, which contains one of the finest examples of a glacial spillway remaining in the United States—the Scuppernong Creek Spillway. The provision of a recommended trail network, as illustrated in Maps 34 through 37, would connect residential areas to the aforementioned major attractions and to these unique natural features, thereby providing opportunities for Village residents and visitors to participate in a wide array of distinctive recreational experiences. All of these popular features provide the Village economic opportunities that may be derived from tourists, recreational users, and trail users attracted to the Wales area.

SUMMARY

This chapter has presented a master plan for the Village of Wales planned urban service area. The plan is designed to achieve the planning objectives identified by the Village based, in part, on public input and the results of a community survey. The plan provides a recommended urban development pattern, including the amount and spatial distribution of residential, commercial, industrial, governmental, institutional, and recreational land uses that will meet the needs of the resident population of the Wales area through the year 2020.

The plan also provides a set of design recommendations for the Village. These recommendations are intended to help the Village continue its efforts to maintain and improve its unique visual character and the vitality of the Historic Village Center. Specific recommendations include improvements to the streetscape façades in the Village and Historic Village Center; the identification and preservation of significant historic resources in the Center and the rest of the community; the reduction or elimination of overhead utility lines and supporting structures; the encouragement of landscaping by owners of private property; and the provision of architectural guidelines to ensure architectural compatibility of buildings and other structures. Any revitalization effort, including that for the Historic Village Center, should play a significant role in establishing a sense of community identity as well as instill a sense of community pride in Village residents and business owners.

The principal function of the master plan is to provide information that local officials can use over time in making decisions about growth and development in the Wales area. The plan should not be considered as rigid and unchangeable. The master plan is intended to be used as a guide in the public review of development proposals and as a tool to help local officials make decisions concerning such proposals. As conditions change from those used as the basis for the plan's preparation, the plan should be revised. Accordingly, the plan should be reviewed periodically to determine whether the objectives are still valid and the extent to which these objectives are being realized. The adopted plan should, however, represent a commitment by the Village Plan Commission and Village Board to strive for the selected planning objectives.

The recommended plan, together with the supporting implementation measures, provides an important means for promoting the orderly development of the Village of Wales and providing for a safe, healthful, attractive, and efficient environment. Consistent application of the plan will help assure protection of the Village's historic and natural resources, including environmental corridors and other environmentally sensitive areas, while providing for the needs of the existing and probable future resident population of the Village.

Chapter VIII

PLAN IMPLEMENTATION

The recommended master plan described in Chapter VII of this report provides a design for attaining the community planning objectives set forth in Chapter VI. In a practical sense, however, the plan is not complete until the steps necessary to implement the plan have been specified. After formal adoption of the master plan, realization of the plan will require faithful, long-term dedication to the underlying objectives by the Village officials concerned with its implementation. Thus, the adoption of the plan is only the beginning of a series of actions necessary to achieve the objectives expressed in this report. This chapter presents techniques that can be used to implement the plan.

PUBLIC INFORMATIONAL MEETINGS, PUBLIC HEARING, AND PLAN ADOPTION

For any planning process, it is good planning practice to hold public informational meetings and hearings on recommended plans before their adoption. Such actions provide an opportunity to acquaint residents and landowners of the Village, as well as adjoining communities, with the recommended plan and to solicit public reactions to the plan recommendations. The plan should then be modified to reflect any pertinent new information and to incorporate any sound and desirable new ideas advanced at these meetings. Accordingly, a public informational meeting on the preliminary recommended plan for the Village was held on September 29, 2003, and a public hearing was held on October 29, 2003. The Village also sent a copy of the preliminary recommended master plan document, along with a report summary, to the local governing body of adjacent communities and invited them to the abovementioned meetings.

An important step in plan implementation is the formal adoption of the plan by the Village Plan Commission and certification of the adopted plan to the Village Board, pursuant to Section 62.23 of the *Wisconsin Statutes*. Formal adoption of the plan by the Village Board is also recommended to demonstrate acceptance and support by the governing body.[1] Upon such adoption, the plan becomes the official guide to be used by Village officials in making development or redevelopment decisions. The master plan should serve as the basis on which all development proposals, such as rezoning requests, preliminary subdivision plats, and certified survey maps, are reviewed. Only those rezonings or land divisions which are consistent with the objectives of the plan should be approved.

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[1]*Under the Wisconsin comprehensive planning law adopted in 1999, comprehensive plans must be adopted by an ordinance of the governing body prior to January 1, 2010 (see Section 66.1001 of the* Wisconsin Statutes*).*

The Village of Wales Plan Commission adopted the recommended master plan on October 29, 2003, (see Appendix G), and certified the plan to the Village Board. The Board of Trustees of the Village of Wales adopted the plan on November 3, 2003 (see Appendix H).

ZONING

Of all the means currently available to implement master plans, perhaps the most important is the zoning ordinance. As indicated in Chapter V, all lands in the Village are under the jurisdiction of the Village of Wales Zoning Ordinance. The zoning districts applicable to the Village in 2000 have been summarized in Table 25 in Chapter V with the application of those districts within the Village shown on Map 28 in that chapter. Following adoption of the master plan, the Village Plan Commission should initiate appropriate amendments to the Village zoning ordinance and zoning district map to bring the ordinance and map into conformance with the concepts and proposals advanced in the adopted master plan. State law requires that a public hearing be held on any proposed amendments to the zoning ordinance. The hearing may, at the option of the Village Board, be held by the Board itself or by the Plan Commission. The latter option is recommended for the comprehensive rezoning of the Village that will be necessary to implement the master plan.

The Village indicated that it intends to conduct a comprehensive amendment of the Village zoning ordinance and attendant map after the adoption of the master plan. To implement the Village master plan, key potential changes that should be considered during this zoning amendment process are discussed below.

Zoning Districts

The majority of the existing zoning districts should be retained. Even though these districts and most of their related lot size and yard requirements would remain the same, additional uses may be added and other uses may be changed to permitted or conditional uses during the subsequent zoning ordinance amendment process after the adoption of the master plan. The recommended changes to existing zoning districts and introduction of new zoning districts are described below.

Agricultural, Residential, Institutional, and Manufacturing Districts

The Village should combine the A-1 Agricultural District and the A-2 Rural Home District into one zoning district titled either A-1 Agricultural/Transitional District or A-1 Agricultural and Rural Holding District to provide for the continuation of general farming or related uses in those areas of the Village that are not yet committed to urban development. This new district is further intended to protect such lands from urban development until their orderly transition into urban-oriented districts is warranted and/or necessary. No lands in the Village are currently zoned A-1.

The existing R-1 Residential District, R-2 Residential District, and R-3 Residential District should be retitled R-1 Single-Family Residential District, R-2 Single-Family Residential District, and R-3 Two-Family Residential District to clearly indicate the type of principal uses intended for the basic district. A new residential zoning district, titled R-4 Multi-Family Residential District, should be established that would accommodate multi-family residential and senior housing developments as the principal uses. Henceforth, the existing R-2 District should be retained for principally two-family residential uses while allowing some less-intensive single-family residential uses, but not the more intensive multi-family residential uses as currently allowed as a conditional use under this district.

Instead of continuing to group governmental and institutional uses into residential or businesses districts, an I-1 Institutional District should be created to better distinguish the types of uses intended for this district, such as churches, cemeteries, schools, and government facilities.

Since the Village indicated during the planning process that it desires not to encourage significantly more industrial development and to accommodate mostly limited industrial uses, the Village may wish to combine the M-1 Limited Industrial and M-2 General Industrial District into one district titled either M-1 Industrial District or the present M-1 Limited Industrial District. However, if the Village anticipates providing public sanitary sewer or

water services in the future, it may wish to retain the existing two industrial district classifications. No lands in the Village are presently zoned M-2.

Conservancy Districts

The existing C-1 Conservancy District should be retitled the C-1 Lowland Conservancy District in order to distinguish this district from the proposed new C-2 Upland Conservancy District discussed below. The C-1 District requirements would be changed to preserve, protect, and enhance such environmentally sensitive lowland areas as the ponds, streams, and wetland areas located in the designated environmental corridors, isolated natural resource areas, and "other open lands to be preserved" shown on the recommended master plan.

The new C-2 Upland Conservancy District would be intended to prevent the destruction of valuable natural resources other than wetlands and surface waters, such as woodlands, wildlife habitat areas, areas of steep topography, and related scenic areas. Regulating these "upland" areas would serve to control erosion and sedimentation, to protect the natural resource base, and to promote and maintain both the natural beauty of the area and the public welfare. This district may permit very low-density residential development of no more than 0.2 dwelling units per net acre, equivalent to one dwelling unit per five acres or more. To ensure that development is carefully integrated with the natural features with minimal disturbance, cluster development and lot averaging are recommended to be allowed in the C-2 District as either permitted or conditional uses. Both techniques utilize design flexibility to situate housing away from environmentally sensitive features, as illustrated later in this chapter. The C-2 District should be used in those parts of the Village with significant combinations of such natural features mentioned above and would basically be applied to areas identified in the adopted master plan as the upland portions of environmental corridors and isolated natural resource areas. Other environmentally sensitive areas with steep topography adjacent to environmental corridors and isolated natural resource areas may also be included in this district.

Planned Unit Development Overlay District

A new zoning overlay district, called the PUDO Planned Unit Development Overlay District, should be added to the Village Zoning Ordinance. This overlay zoning district would permit certain zoning requirements to be relaxed in the basic-use district in order to allow flexible design standards for developments that will be enhanced by coordinated site planning, diversified location of structures, and/or mixing of compatible land uses. Such developments are intended to provide a safe and efficient system for pedestrian and vehicle traffic; to provide attractive recreation areas and, ultimately, preserved open spaces as integral parts of the developments; to facilitate the economic development of public and private utilities and community facilities; and to ensure adequate site development standards. The overlay district should be available for application to residential, commercial, industrial, and mixed compatible uses. In contrast to basic and other overlay zoning districts, vacant lands should not be pre-zoned into this PUDO District until detailed development plans for the parcel(s) in question have been prepared by the developer. Even though the existing Village zoning ordinance contains provisions that allow planned developments, such development may only be allowed as a conditional use for residential uses and is not established as an overlay zoning district.

Floodplain Study and Districts

During the planning process, Village officials expressed interest in potentially identifying existing floodplains within the Village so that such affected areas will be properly regulated to help protect the general public. At present no floodplain studies have been conducted for the Village of Wales and, therefore, no floodplains have been delineated for the Village even though there appears to be floodplain areas in the community based on floodplain delineations for surrounding areas. The Village may consider two options for conducting a floodplain study. The Village could elect to participate in a floodplain study that the Federal Emergency Management Agency (FEMA) may conduct in the future to update current flood insurance studies. This study would identify existing floodplains and update flood hazard data that would be used to refine the floodplain and/or floodway boundaries set forth in the current flood insurance programs.

As an alternative, the Village may request assistance from Waukesha County and the Southeastern Wisconsin Regional Planning Commission to conduct a detailed floodplain analysis that would identify existing floodplains

for certain streams that lie within the Village and environs. This study would likely involve other communities affected by said streams. The cost for the study would be shared among the communities concerned with potential financial assistance from State and/or Federal sources. The analysis would identify specific floodway and flood-fringe portions of currently approximated floodplains located along certain streams and replace those set forth in FEMA's present flood insurance studies. The proposed floodplain revisions, based on the results of this analysis, would then be submitted to the Wisconsin Department of Natural Resources (DNR) and FEMA, requesting their review and approval prior to 1) adoption for local zoning purposes and 2) revision of the FEMA Flood Insurance Rate Maps. Following DNR and FEMA approval of the floodplain analysis, the Village would then zone those areas of the Village affected by the floodplain to reflect the 100-year recurrence interval water surface profile and floodplain and floodway boundaries set forth in the floodplain analysis.

The delineation of the floodplain would then be used to regulate certain portions of the floodplains, each with separate provisions such as the establishment of a floodway district, floodplain-preservation district, and floodplain-fringe overlay district. The defined floodplain would be further used to help define and regulate the shorelands and shoreland-wetlands within the Village.

Site, Landscape, and Architectural Plan Review and Regulations

The good appearance and proper design of developments within the Village, consistent with the design guidelines outlined in Appendix C, will continue to ensure an attractive community and help stabilize or increase property values, benefiting both the community and the individual property owner. To achieve this objective, the zoning ordinance should contain requirements for submittal of development plans and for the provision of additional detailed information pertaining to the site, landscaping, and building elements of a proposed development or redevelopment as specified in Appendix I. The zoning ordinance should require that a complete set of development plans be submitted for review and approval by local officials for all intensive uses such as proposed multi-family residential, commercial, industrial, governmental, institutional, and recreational developments.

To ensure that the built environment will foster the attractiveness of the community as a place to live and work, the Village of Wales zoning ordinance should establish specific minimum landscape requirements and architectural provisions or guidelines that are consistent with the design guidelines set forth in Appendix C. The ordinance should contain specific provisions for landscape plan submittal requirements and define the amount of landscaping to be provided for proposed urban development and redevelopment projects. Minimum landscape requirements should be established for, but not limited to, building foundation planting, freestanding sign landscaping, interior parking lot landscaping, perimeter and buffer yard landscaping, and screening for parking lots, dumpsters, and mechanical equipment.

The attractiveness of the architectural features in a built environment is just as important as the beauty of its natural features. Provisions for architectural control within the Village of Wales and its Historic Village Center could be incorporated into the Village zoning ordinance by means of architectural requirements and review guidelines based, in part, on the architectural design guidelines set forth in Appendix C and the basic architectural review guidelines set forth in Appendix I. If the Village does not wish to require, but instead to encourage architectural compatibility within the Historic Village Center as well as the rest of the Village, a separate document containing detailed architectural or building improvement guidelines could be prepared to supplement the zoning ordinance. These guidelines would help assure respect for, and reduce incompatible and adverse impacts on, the visual experience in the Village, especially in the Historic Village Center which has a predominantly residential architectural character with a high concentration of potentially historically significant buildings, as discussed in Chapter IV. It should be noted that the *Wisconsin Statutes* requires cities and villages containing a property listed on the National Register of Historic Places or the State Register of Historic Places to enact a historic preservation ordinance to protect the property.

A detailed analysis of the existing zoning ordinance should be conducted to determine its deficiencies for systematic implementation of the design elements of the adopted master plan. The Village of Wales has expressed interest in revising the present zoning ordinance to include such provisions in the ordinance, as part of a

comprehensive amendment of the entire ordinance as mentioned earlier, to better guide the Village in the review of proposed building plans, as well as related site and landscape plans.

LAND DIVISION REVIEW AND REGULATIONS

Sound land division regulations are an important means of implementing a master plan and of coordinating the layout, design, and improvement of private land development proposals within the Village. Land divisions and associated improvement of land within the Village are governed by the Village of Wales Subdivision and Platting Ordinance, set forth in Chapter 18 of the Village Municipal Code. The adopted master plan should serve as a basis for the review by appropriate Village officials of land subdivision plats and certified survey maps for areas in the Village and the Village's extraterritorial plat approval jurisdiction. The review should ascertain that each proposed land division is properly related to existing and proposed land uses. Land divisions should consider the proper layout of streets, blocks, and lots as well as the topography, soils, drainage, and vegetation of the site. Proposed subdivisions should be designed as integral parts of the larger community. Any proposed departures from the master plan should be carefully considered by the Village Plan Commission and should be allowed by that Commission only when it finds that such departures are warranted in the public interest.

Certain changes are recommended to the Village land subdivision ordinance. The ordinance should include provisions that recommend sketch or concept plans be presented at pre-application meetings, which may prevent expensive redesign cost and frustration, reduce formal plat review and approval processing time, avoid costly development problems, gain public acceptance, and help achieve a better design of proposed subdivisions. The sketch plan would identify the future development of the parcel, including general street and lot locations, and attendant site analysis information. Proposed minor land divisions that may eventually be incorporated into a larger development on an adjoining parcel held by the same owner should include such a sketch plan of the overall development showing the potential integration of the adjoining sites.

Other suggested changes that would improve the ordinance include requiring: the street, cul-de-sac turnaround, and pedestrian path/sidewalk design to be consistent with the standards established in Appendix C, including the minimum dimensions shown in Figure C-1 of that appendix; a minimum 30-foot wide landscaped buffer strip to be provided for proposed lots abutting limited access highways, including additional lot depth or width to accommodate this landscaped strip, for purposes of noise attenuation, buffering, and access control; vision triangular clearance areas and attendant deed restrictions to be provided on plats; the minimum dimensions for horizontal and vertical curves for arterial streets to be consistent with those dimensions established in Appendix C; a requirement for subdividers to install one street tree for every 50 feet of public street frontage in the street right-of-way or five to 10 feet from the street right-of-way on adjoining properties; and requirements for the proper protection of trees during construction, including the use of wells and islands and the prevention of soil compaction and stockpiling of soil or construction materials in existing tree-root zones, even if such placement is temporary. In addition, the Village should consider amending its land division ordinance to include provisions specifically related to conservation subdivisions. These provisions could include, among others, standards regarding the amount of land to be retained in open use and requirements regarding the use of covenants, easements, or deed restrictions to ensure the preservation of open space land.

A complete analysis of the existing land division ordinance should be conducted to determine whether any other amendments are necessary to implement the master plan, including the pertinent design guidelines established in Appendix C.

APPROPRIATE DEVELOPMENT WITHIN ENVIRONMENTALLY SIGNIFICANT AREAS

As noted earlier, areas designated as environmental corridors, isolated natural resource areas, and "other open lands to be preserved" should be placed in the appropriate conservancy zoning district. While the placement of the lowland portions of these environmentally sensitive areas into the C-1 Lowland Conservancy District serves to reinforce Federal, State, and county regulations that protect such areas from inappropriate development, the

placement of the upland portions into a proposed C-2 Upland Conservancy District serves to protect resources such as woodlands and steep slopes that may not be protected by existing Federal, State, or local regulations.

Where possible, the Village master plan recommends that housing units be located entirely outside of environmental corridors, isolated natural resource areas, and other environmentally significant areas. While calling for preservation of environmental corridor lands, the plan recognizes that in some cases it may be necessary to allow very low density residential development on the upland portion of such lands. It would be desirable for such development to utilize cluster, or conservation, development designs. Figure 5 shows three alternative design options for rural residential development within a primary environmental corridor. All the design options provide a means of preserving environmentally sensitive areas while maintaining an overall density of no more than one dwelling unit per net five acres of land. The first alternative, Alternative A, shows the site divided into eight lots of five acres in size or greater. Each dwelling unit is carefully located to avoid environmentally sensitive features. Alternative B shows the same site with the dwelling units clustered on eight contiguous lots about one acre in size, which allows most of the site to remain undisturbed while still providing each homeowner with a private residence and yard. This design configuration also retains the natural character of the site as viewed from the existing public street. Alternative C shows the site with eight housing units clustered into two buildings, each containing four condominium units. This option would be most appealing to those who prefer living in a relatively undeveloped area, but are unwilling or unable to care for a detached housing unit and yard. It should be noted that even such limited development will have some impact on the resources concerned. The Village Plan Commission should carefully take into account such impacts as well as the effect the development may have on the environmental corridor as a whole in their review of development proposals.

While seeking to preserve environmental corridors, isolated natural resource areas, and other environmentally sensitive areas, the recommended master plan for the Village recognizes that, besides limited residential development, land uses such as transportation and utility facilities and certain recreational uses may also be accommodated within these environmentally significant areas without jeopardizing their overall integrity. In this respect, general guidelines for types of development that may be accommodated within various component natural resource features of environmental corridors have been prepared and are set forth in Appendix J. While these guidelines are not exhaustive, with good judgment they may be extended to, and be used for the evaluation of, proposals for similar types of development not specifically listed. The Village plan recommends that open space and conservation design techniques be utilized when residential development is accommodated in environmentally sensitive areas.

OPEN SPACE PRESERVATION AND CONSERVATION DESIGN

The Village plan recommends that open space and conservation design concepts be utilized whenever possible for new residential development. The Village should, therefore, encourage the use of these design concepts, whenever appropriate, and consider adding provisions to the zoning ordinance which would allow design flexibility to help preserve country character and to protect and preserve natural resources. Two alternative forms of residential development that would permit more site-sensitive design in multiple-lot developments are conservation subdivision design,[2] also known as cluster development, and lot averaging. Both alternatives provide more flexibility in site design and lot layout than do conventional subdivisions. It is recommended that developments using conservation subdivision and/or lot-averaging concepts be added as permitted or conditional uses in zoning districts allowing residential development, including the proposed C-2 Upland Conservancy District.

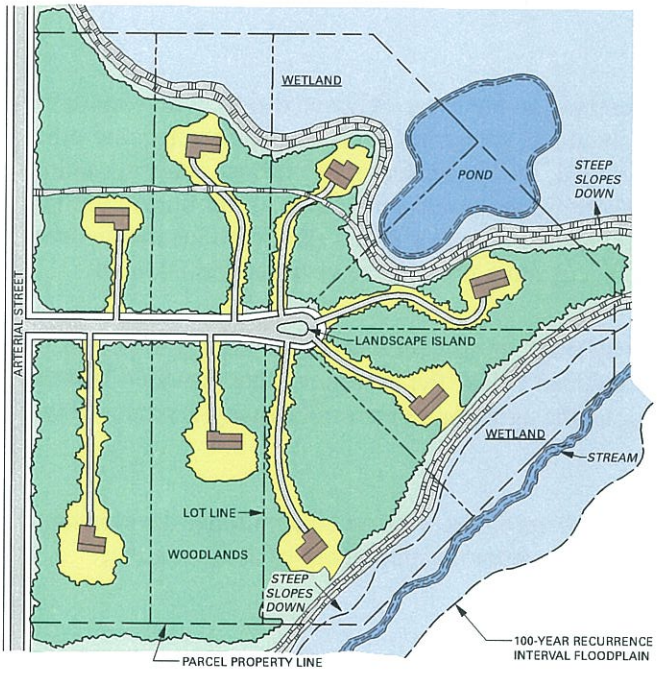
The term "conservation subdivision design" refers to a form of residential development in generally rural areas that preserves open space while permitting development at densities no less than those permitted under conventional development. As illustrated in Figure 6, a residential development incorporating conservation subdivision design concentrates, or "clusters," the permitted number of lots on a portion of the tract, leaving the remaining acreage in open space use rather than creating individual lots with no preserved common open space

[2]*Detailed site design and zoning considerations relative to the implementation of conservation subdivision design standards are presented in SEWRPC Planning Guide No. 7,* Rural Cluster Development Guide, *December 1996.*

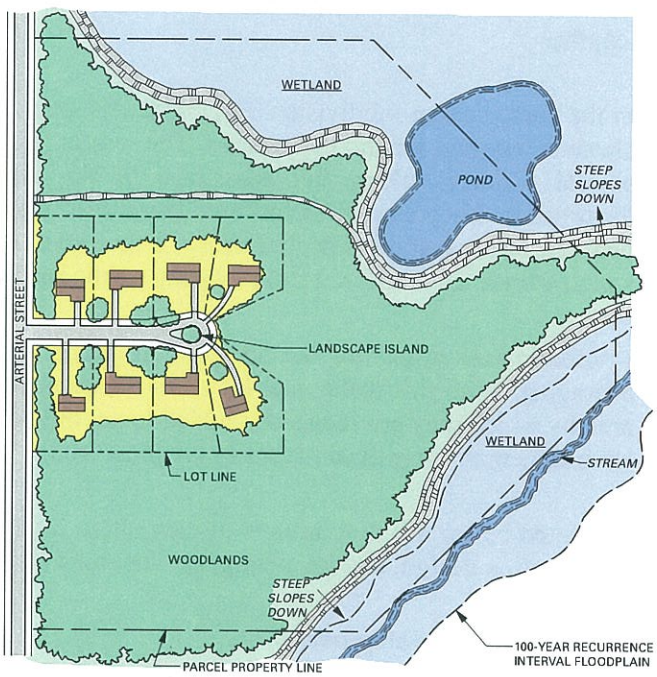
Figure 5

ALTERNATIVE RESIDENTIAL DEVELOPMENT DESIGNS COMPATIBLE WITH PRIMARY ENVIRONMENTAL CORRIDORS

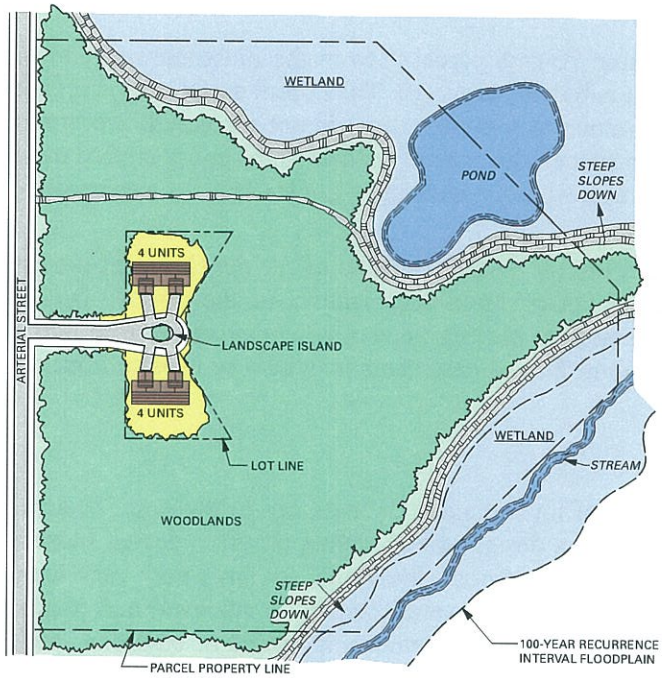
A. CONVENTIONAL FIVE-ACRE LOT DESIGN



B. CLUSTERED ONE-ACRE LOT DESIGN



C. CLUSTERED CONDOMINIUM DEVELOPMENT DESIGN



Source: SEWRPC.

under conventional subdivision design as illustrated in Figure 7. When properly designed, the visual impact of clustered residential development can be minimized, maintaining the country character of the landscape, preserving significant natural features and agricultural lands, creating opportunities for nonpublic ownership of open space, and increasing the efficiency of infrastructure development. Infrastructure installation costs borne by the developer and public infrastructure maintenance costs could be reduced due to shortened street and utility lengths.

In the conservation subdivision design process, open space preservation areas are delineated first, with residential clusters designed around those areas. The residential clusters should be integrated with the topographic and other natural features, taking full advantage of the settings provided by those features without causing undue disturbance. They should be buffered from nearby agricultural lands, as appropriate, so as to minimize conflicts between farming and residential uses. To the extent practicable, the residential clusters should be located in areas which are visually buffered from existing public roadways, so that existing open space vistas are maintained.

Another means of gaining the flexibility to situate housing away from significant natural features is to permit lot averaging. With this technique, lot areas are permitted to be reduced below the minimum size provided that the area by which they are reduced is added to another lot, as long as the agreed-upon overall density is achieved and environmentally significant features are preserved.

Presented below are descriptions of alternative lot layouts for a 70-acre parcel using conventional development, conservation design, and lot averaging. The same number of lots are accommodated under each alternative.

Conventional Development
As illustrated in Figure 8, with a minimum lot size of five acres, a total of 10 lots could be created on the 70-acre under a conventional development scenario. The lot layout was based on geometrically maximizing the number of lots on the parcel, rather than on conserving the natural features of the site. As a result, the wetlands, woodlands, and steep slopes fall under multiple ownership with no guarantee of proper land management.

Conservation Design
Figure 9 illustrates how the same 70-acre parcel used in the illustration of conventional development might be developed using a conservation subdivision design. The minimum lot size is reduced from five acres to one acre, but the overall density (the number of lots permitted) is not increased, preserving well over 70 percent of the entire parcel in permanent open space. The natural features come under unified ownership as common open space, and may therefore be managed as a whole, preserving the integrity of the ecosystem.

The open space may be owned jointly by the residents of the development through a homeowners' association, the local municipality, a private conservation organization, or the original landowner. Conservation easements and deed restrictions should be used to protect the common open space from future conversion to more intensive uses or from further land divisions. Scenic easements may also be used to limit development for the purposes of preserving open space vistas.

Lot Averaging
Figure 10 illustrates the concept of lot averaging as it applies to the same 70-acre parcel illustrated in Figures 8 and 9. Like conservation subdivision design, lot averaging provides design flexibility, allowing for site-sensitive placement of homes on a development parcel. Individual lot sizes may vary within a development that utilizes lot averaging, as long as the agreed-upon overall density is achieved and identified environmentally sensitive site features are preserved. Although the opportunity to maintain environmentally significant resources under unified ownership is lessened, the flexibility in the location of homesites permits a more site-sensitive design than does conventional development. Because lot averaging does not create common open space, a homeowners' association is not needed. Similar to the conservation design concept, deed restrictions and conservation easements should be used to prevent further land divisions and to protect environmentally sensitive areas.

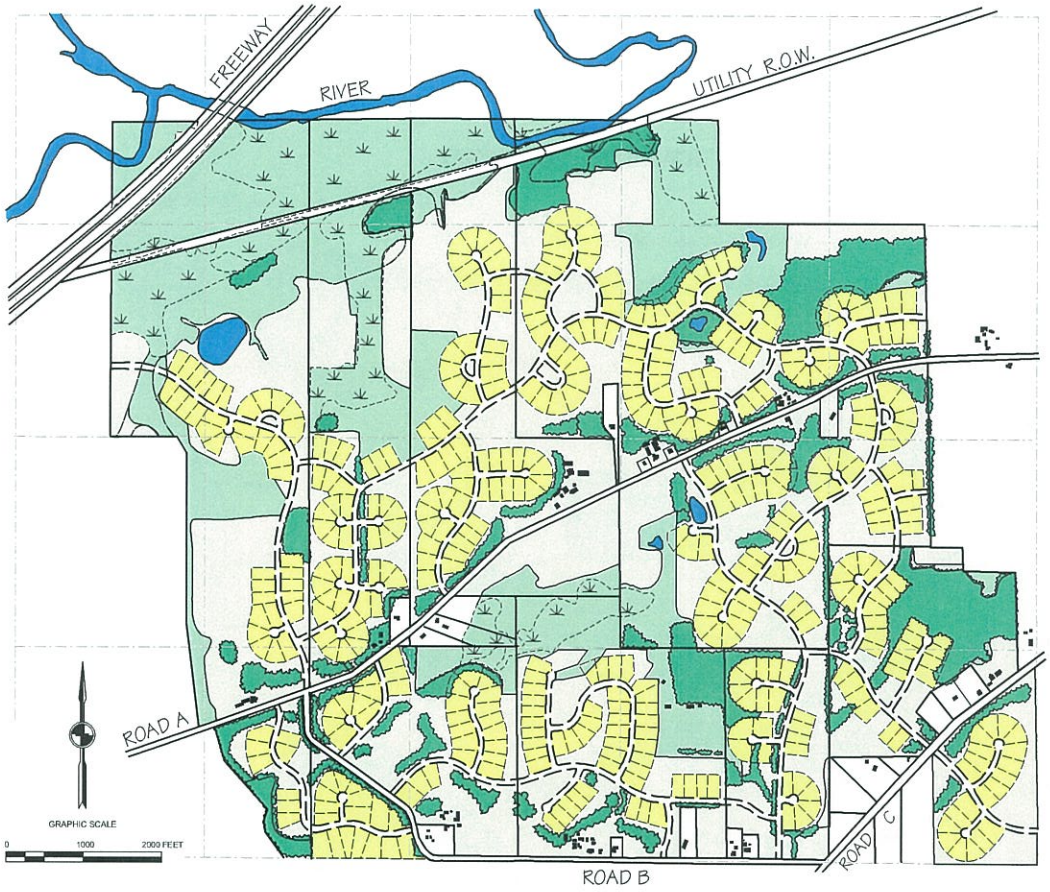


Figure 6

EXAMPLE OF CLUSTER DEVELOPMENT

LEGEND

- PRIMARY ENVIRONMENTAL CORRIDOR, SECONDARY ENVIRONMENTAL CORRIDOR, AND ISOLATED NATURAL RESOURCE AREAS
- OTHER COMMON OPEN SPACE
- WOODLANDS, HEDGEROWS, AND BUFFERS
- 100-YEAR RECURRENCE INTERVAL FLOODPLAIN
- WETLANDS
- SURFACE WATER
- EXISTING HIGHWAY OR STREET RIGHT-OF-WAY
- EXISTING PROPERTY LINE
- EXISTING STRUCTURES
- PROPOSED LOT AREA
- PROPOSED STREET RIGHT-OF-WAY
- PROPOSED PROPERTY LINE

Source: SEWRPC.

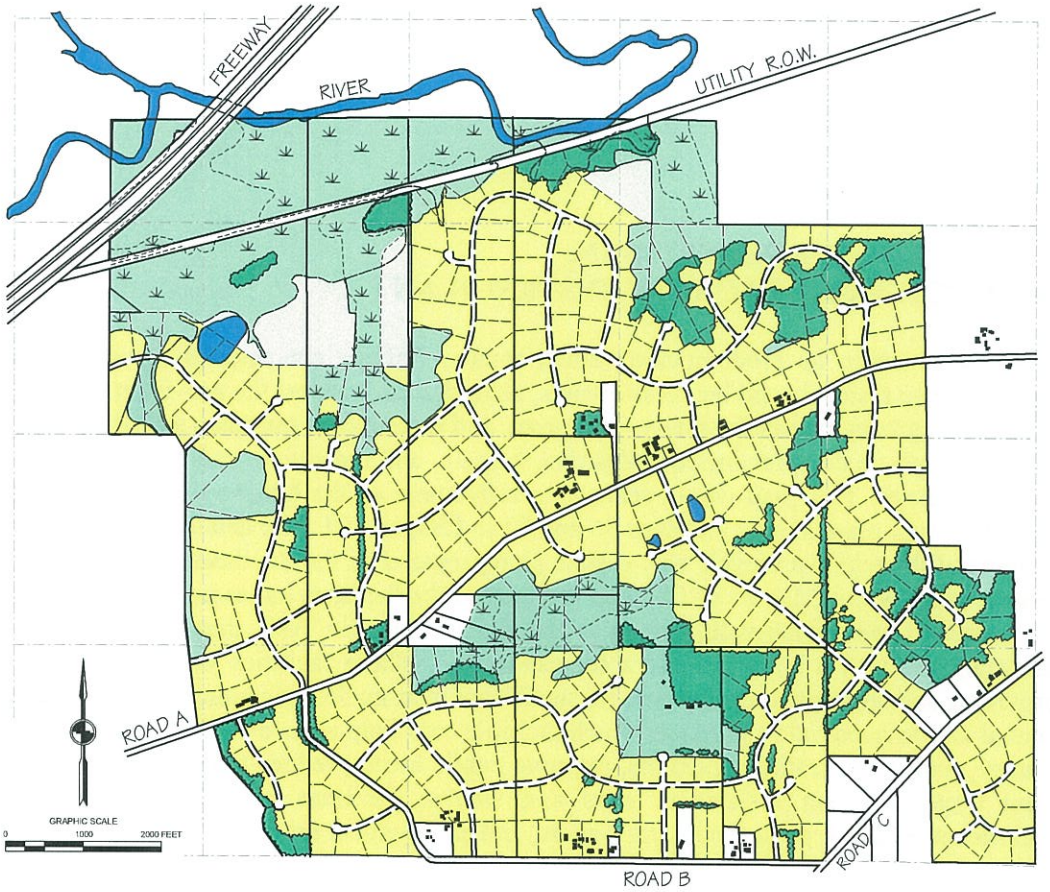


Figure 7

EXAMPLE OF CONVENTIONAL DEVELOPMENT

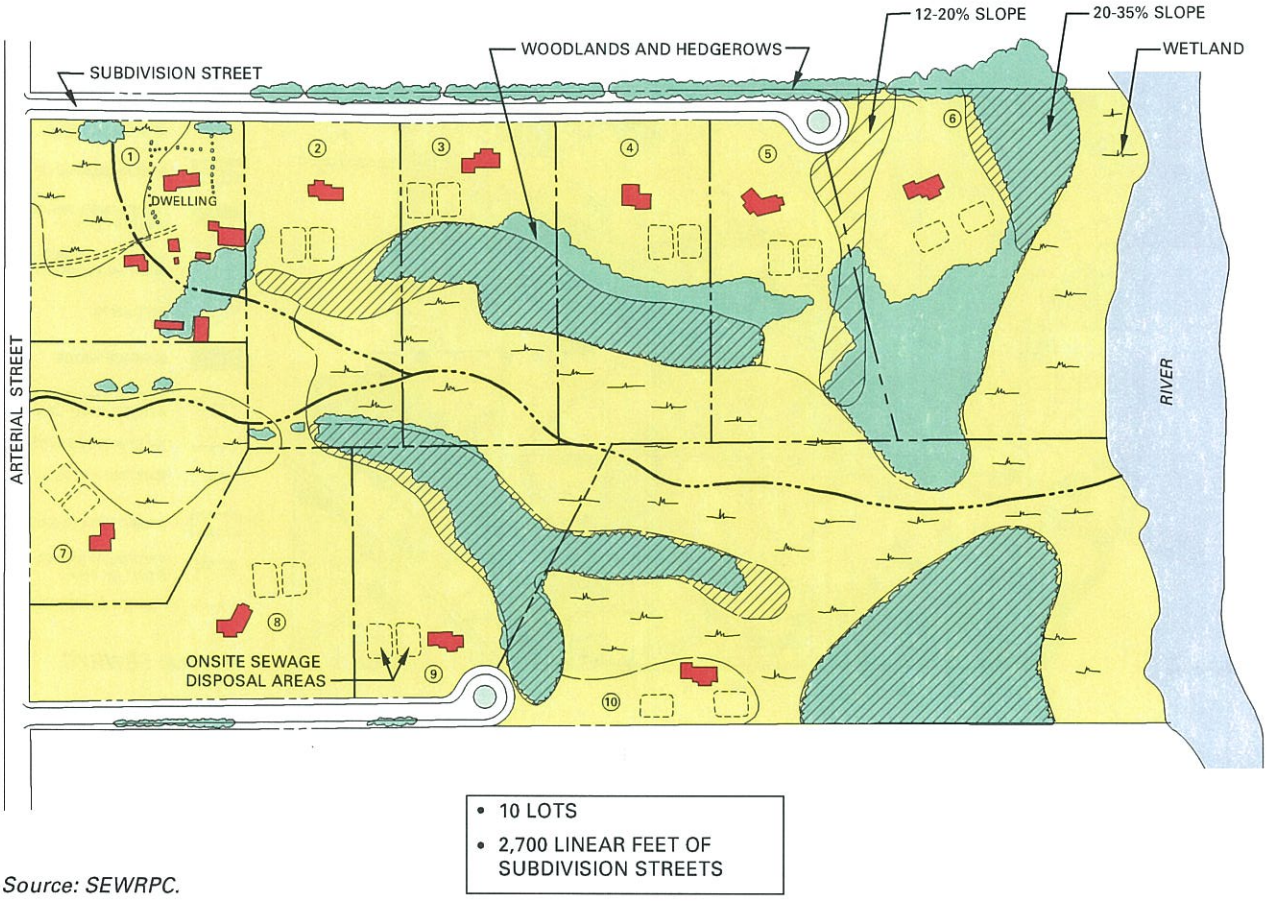
LEGEND

- PRIMARY ENVIRONMENTAL CORRIDOR, SECONDARY ENVIRONMENTAL CORRIDOR, AND ISOLATED NATURAL RESOURCE AREAS
- OTHER COMMON OPEN SPACE
- WOODLANDS AND HEDGEROWS
- 100-YEAR RECURRENCE INTERVAL FLOODPLAIN
- WETLANDS
- SURFACE WATER
- EXISTING HIGHWAY OR STREET RIGHT-OF-WAY
- EXISTING PROPERTY LINE
- EXISTING STRUCTURES
- PROPOSED LOT AREA
- PROPOSED STREET RIGHT-OF-WAY
- PROPOSED PROPERTY LINE

Source: SEWRPC.

Figure 8

EXAMPLE OF A CONVENTIONAL DEVELOPMENT



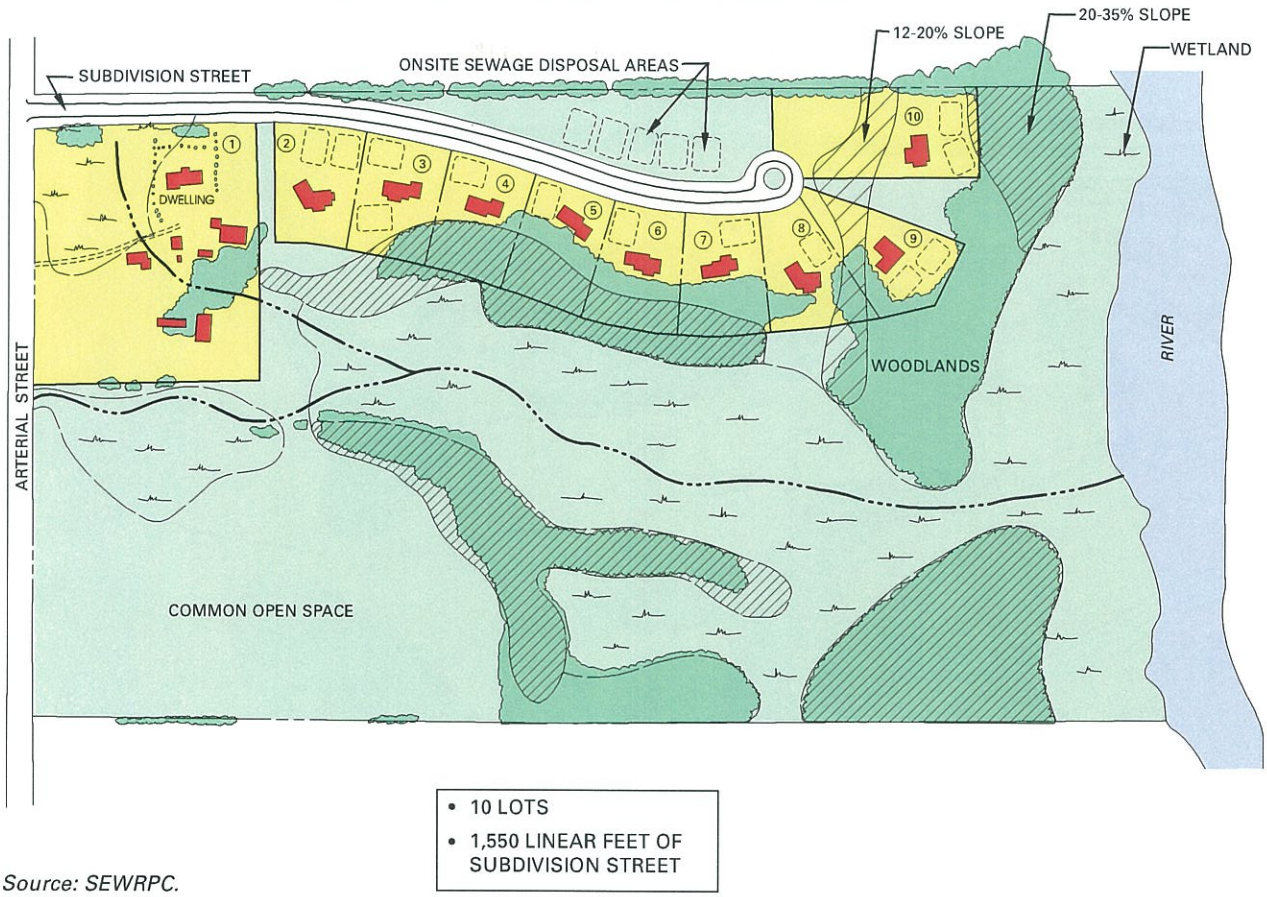
Source: SEWRPC.

THE NEED FOR A COMPREHENSIVE PEDESTRIAN, BICYCLE, AND RECREATION TRAIL FACILITY SYSTEM PLAN

Even though the Village desires to retain its predominantly small-country Village character and avoid most "urban" features, a majority of Village residents and business owners, nevertheless, support the provision of some pedestrian and bicycle facilities along busy streets for safety, utilitarian, and recreational purposes as indicated in a communitywide survey. Accordingly, a comprehensive pedestrian, bicycle, and recreation trail facility system plan should be prepared by the Village. This plan would serve as a refinement of the bikeway plan shown on Maps 34 and 35 and the recreation trail plans shown on Maps 36 and 37 in Chapter VII. The detailed facility plan would also serve as a refinement of the regional bicycle way system plan prepared by the Southeastern Wisconsin Regional Planning Commission as shown on Map 25 of Chapter V. Some of the facilities indicated in the detailed system plan would likely be a shared-use asphalt path, similar to the Glacial Drumlin Trail, that serves a multi-purpose function as a pedestrian pathway, a bikeway, and a recreation trail. These facilities should ultimately assist in connecting, and providing safe and convenient access to, significant man-made and natural features of the study area for both recreational and transportation purposes. Such facilities will help reduce air pollution, reduce energy consumption, encourage outdoor recreational pursuits, improve public health, reduce transportation costs, and provide for convenient travel between residential areas and support facilities of neighborhood and communitywide importance, such as schools, parks, shopping centers, and employment areas.

Figure 9

EXAMPLE OF A CONSERVATION SUBDIVISION



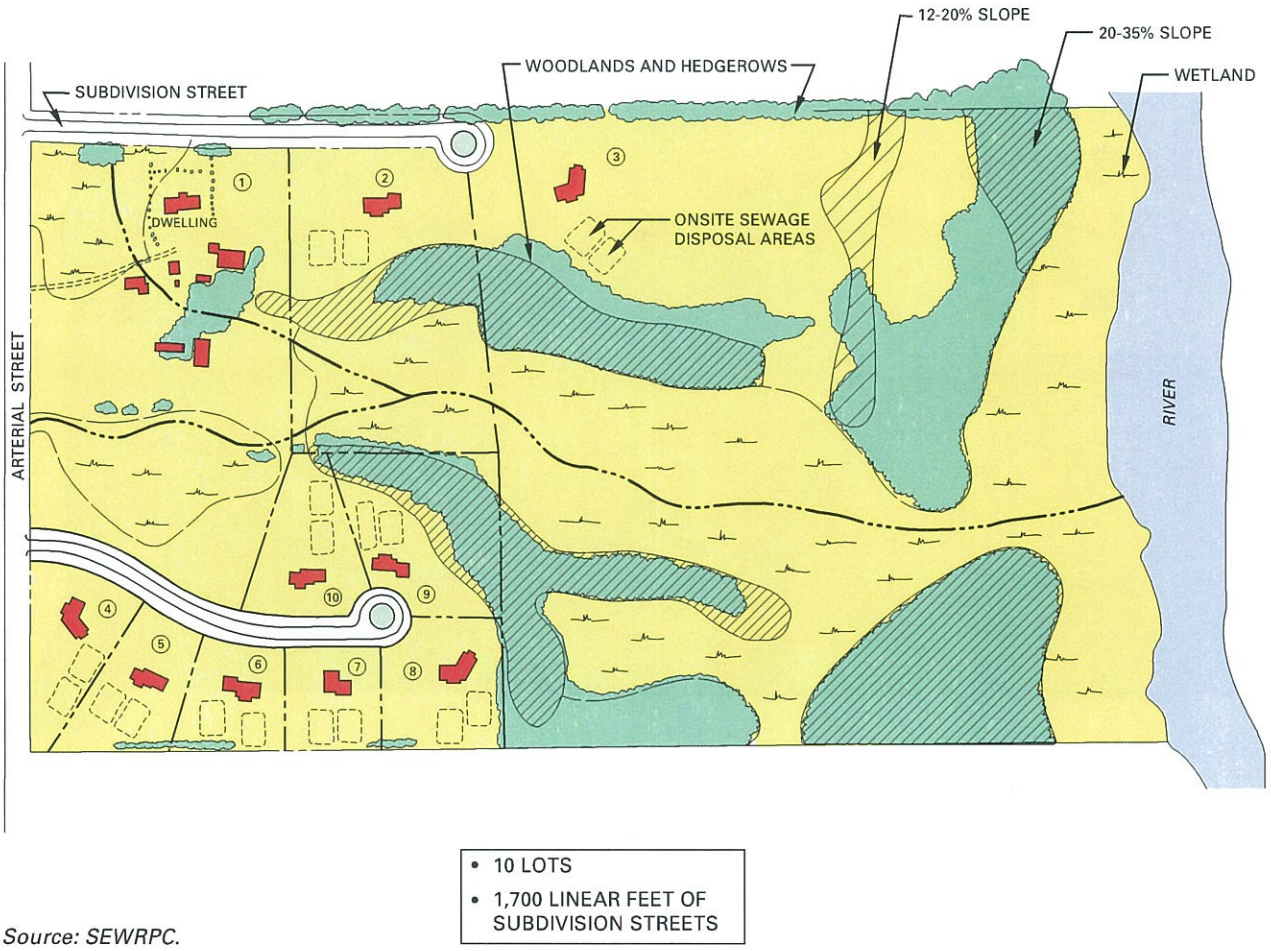
Source: SEWRPC.

The detailed facility plan should not only identify which segments of a path should be used for certain recreational activities such as hiking, cross-country skiing, in-line skating, and biking, but should also provide specific design standards for safety and construction purposes. Design guidelines may include minimum easement or right-of-way widths, type of pavement surface and base, minimum pavement and shoulder widths, type of signage, construction cost, and other related information. The facility aspects of the plan should specifically distinguish which pathways should consist of concrete sidewalks, shared-use asphalt paths separate from street pavements, bike paths located on street pavements with identified bicycle lanes on each side, or "shared roadways"—signed bicycle routes with no delineated bike lanes on streets that may contain wide curb lanes or paved shoulders and have low traffic speeds and volumes, such as collector and minor land-access streets. A facility system should be planned in a comprehensive and continuous, rather than a piecemeal, fashion. For example, it is important to preferably provide continuity and consistency in the type of bikeway facility provided instead of switching from short segments of bike lanes to wide curb lanes to bike lanes on the same street. All proposed facilities should be further based on site-specific engineering studies prior to development.

To establish bikeways, pedestrian pathways, and recreation trails without careful study could be very costly. Completion of an overall plan reduces needless duplication and improves overall efficiency and helps in the decision-making process as a point of departure in determining the necessary easement or right-of-way widths needed to accommodate such facilities adequately. Not only will the plan help the Village channel local funds

Figure 10

EXAMPLE OF LOT AVERAGING



Source: SEWRPC.

efficiently, but will also enable the Village to qualify for potential government assistance programs and fundings such as the Surface Transportation Program-Enhancement Program funds and the Congestion Mitigation and Air Quality Improvement Program funds (CMAQ) established under Federal and State transportation law. Funding of such facilities within street rights-of-way can best be accomplished through the incorporation of improvements into larger roadway improvements which is usually the most cost-effective approach. Facilities developed in this manner are often referred to as "incidental" improvements by the Wisconsin Department of Transportation when such improvements are part of new road construction or reconstruction projects using State and/or Federal funding. The Village should work with surrounding communities, Waukesha County, and the State Departments of Transportation and Natural Resources to insure that, as the pathways are planned and developed, adequate connections with surrounding facilities are established.

THE NEED FOR CONTINUED REVITALIZATION AND HISTORIC PRESERVATION PLANNING

The significant number of potential historic places in the Wales area, as shown on Map 19 in Chapter IV, indicates that the area is rich in historic resources. To a large extent, individual owners have sensitively preserved or rehabilitated many of these potential historic buildings and, in other cases, some buildings are in disrepair or have been demolished. There is a need for additional action in the preservation and enhancement of Wales'

historic heritage to prevent disrepair or demolition of historic structures. As indicated in Chapters IV and VII, additional formal historical surveys should be conducted for the Wales study area. The Village may wish to undertake such a survey jointly with surrounding communities which may contain similar historic features of Welsh and other ethnic heritage.

A complete communitywide historical survey is the means by which a community such as Wales examines itself in order to identify its unique historic heritage. Such a survey collects, organizes, documents, and photographs historical data and serves to make the community more aware of the value of preserving its past. A more comprehensive survey of this type is needed for the Village of Wales, as evidenced by findings in Chapter IV. It is recommended that a complete and uniform historical survey, of the nature described and in conformance with accepted National standards, be conducted by the community with assistance and guidance from qualified consultants and the Historic Preservation Division of the State Historical Society of Wisconsin. The study should also examine the potential for nomination of specific places and, possibly, a historic district to the National and State Registers of Historic Places. Section 62.23(7) of the *Wisconsin Statutes* requires that any municipality containing property listed on the National or State Registers of Historic Places must enact a historic preservation ordinance to safeguard such resources.[3] The Village adopted such an ordinance in 1996. Stewardship of historic buildings in the Village should be a high priority of both the public and private sectors.

A significant number of potential historic buildings in the Village of Wales are located in the Historic Village Center, 16 of the total 24 potential sites, contributing to the unique character of the Village. As noted earlier, the Village should capitalize on this character by continuing to revitalize this Historic Village Center. Design plans for the area should be at a high level of specificity, and apply to both detailed development and redevelopment proposals. The detailed plans may include a business market analyses, structural condition surveys, and detailed proposals with respect to streetscape, landscaping, signs, parking, bicycle/pedestrian facilities, and any necessary offsite traffic improvements. Basic design recommendations for further enhancing the Center are provided in Chapter VII. For example, such plans may encompass a detailed streetscape plan that includes, but is not limited to, proposed decorative street lighting and tree plantings along Main Street and possibly James and Elias Street with strategically situated ornate benches, fencing, trellises, and landscape beds provided along the popular Glacial Drumlin Trial. The plans should also include building-specific proposals for preserving or restoring potential historic buildings.

The Village should also work closely with the government agencies having jurisdiction over two main arterial streets functioning as "gateways" leading traffic into the Village, Wales Road (STH 83) and Summit Avenue (USH 18). Since these arterials may likely convert to four-lane divided arterials, it is important that the arterial design reflects an aesthetic quality that is representative of the Village's desired character with proper streetscaping as described in Chapter VII.

CAPITAL IMPROVEMENTS PROGRAM

A capital improvements program is a list of major public improvements needed in a community over a short-term period, usually five years, arranged in order of priority of need and adjusted to the community's ability to finance them. Major public improvements include such items as street improvements and new construction, street lighting, pedestrian/bicycle paths, storm sewers, and public buildings and parks, which together form the "urban infrastructure" required to support urban land use development and redevelopment. A capital improvements program is intended to promote well-balanced community development without overemphasis on any particular phase of such development, and to promote coordinated development both in time and between functional areas. With such a program, required bond issues and tax revenues can be foreseen and provisions made. Land needed for the projects can be acquired in a timely fashion and staged construction facilitated.

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[3]*Several versions of model historic preservation ordinances have been published by and are available from the State Historical Society of Wisconsin, Division of Historic Preservation in Madison.*

It is recommended that those elements of the adopted master plan requiring public expenditures for implementation, including streetscaping, pedestrian/bicycle facilities, and revitalization projects, be included in the Village's capital improvements program, which is established for a one year period and reviewed and updated annually.

INTERGOVERNMENTAL AGREEMENTS AND COOPERATION

The master plan presented in this report includes planning recommendations for certain areas beyond the present corporate limits of the Village of Wales. The Village abuts portions of the Towns of Genesee and Delafield. Under Wisconsin law, cities and villages have been granted a considerable measure of influence over development in adjacent town areas. Incorporated communities have extraterritorial subdivision plat approval authority; they may administer extraterritorial zoning jointly with the adjacent town; and ultimately, they may annex unincorporated areas.

It is recommended that the Village of Wales and the neighboring municipalities continue to take a cooperative approach to planning and decision-making regarding future land use in areas of mutual concern. Activities in this respect could range from periodic meetings of Village officials and those of neighboring municipalities for the purpose of discussing land use matters, to preparing and executing formal agreements regarding future boundaries and arrangements for the provision of public services, as provided for under Sections 66.0301 and 66.0307 of the *Wisconsin Statutes*. Such cooperative efforts increase the likelihood for coordinated development along the boundary areas, achieving, insofar as practicable, planning objectives for all municipalities involved.

The Village of Wales entered into an agreement with the Town of Genesee in September 2000 and with the Town of Delafield in January 2002, which provide a basis for establishing future municipal boundaries among the three communities and provides for cooperative planning regarding certain areas of mutual interest. The agreements are intended to provide for adequate and logical growth between the Towns and the Village so that each can properly and logically plan for the future needs of their respective community, and to avoid future potential lawsuits related to annexations. The Village of Wales and Town of Delafield agreed that the current municipal boundaries existing between the two communities, and as shown on the recommended master plan, would be fixed in perpetuity, subject only to alteration by the mutual written agreement of the two communities. Under the agreement with the Town of Genesee, certain areas of the Town would be immediately incorporated into the Village, and other areas were reserved for future expansion of the Village after the property owner(s) voluntarily request such annexation or upon development of said land. This agreement also provides for the establishment of a joint planning committee consisting of Village and Town officials. The committee would determine the desired land use pattern for two specific areas of mutual interest.

The Village of Wales and the Town of Genesee have also demonstrated a spirit of cooperation by jointly owning and operating the present Wales-Genesee Fire Department, while planning for a new fire station under a similar arrangement to replace the existing station. The new fire station is tentatively planned to be located adjacent to the new Wales Community Park. The Village may also consider in the future a potential cooperative arrangement to share other services and facilities with adjacent towns to avoid duplicating services and facilities that would serve the residents of the Village of Wales and surrounding town areas.

PLAN REEVALUATION

A master plan is intended to serve as a guide for decision-making regarding development in a community. As a practical matter, local master plans should be prepared for a long-range planning period, typically about 20 years. The design year chosen as a basis of the preparation of this Village of Wales master plan is 2020. A local master plan should be evaluated regularly to ensure that it continues to reflect local development conditions and local planning objectives. In general, it is recommended that this reevaluation take place every 10 years, or more frequently if warranted by changing conditions. The Village should, however, reevaluate the plan prior to 2010 and make those modifications, if any, to comply with the State of Wisconsin Comprehensive Planning requirements as explained below.

The Wisconsin Legislature in 1999 adopted the so-called "Smart Growth" legislation, which requires any action of a local government that affects land use, such as enforcement of zoning or subdivision ordinances, to be consistent with a community's Comprehensive Plan, beginning on January 1, 2010. A new definition of comprehensive plan, consisting of nine elements, was adopted as Section 66.1001 of the *Wisconsin Statutes*. The legislation also sets forth new requirements for public participation in the development of a comprehensive plan and requires that such a plan be adopted by ordinance of the local governing body.

The "Smart Growth" legislation does not affect the ability of local governments to prepare and adopt master plans, or elements thereof, prior to 2010. However, the Village plan should be evaluated prior to 2010, and any necessary changes should be made both to reflect new or changed development conditions and local planning objectives, and to incorporate additional information needed, if any, to comply with the "Smart Growth" legislation.

SUMMARY

This chapter presents information on various master plan implementation measures which should be considered by the Village. They include public informational meetings and hearings; plan adoption procedures; suggested revisions to the Village zoning ordinance, zoning map, and land division control regulations; establishment of site planning and design controls; information regarding appropriate development in environmentally significant areas; the use of cluster or conservation subdivision design concepts; capital improvement programming; and approaches to intergovernmental cooperation. All require a strong commitment by the Village government to the implementation of the master plan. The plan also recommends the preparation, within its framework, of several plans to further refine and detail the recommendations set forth in the master plan, including a comprehensive pedestrian, bicycle, and recreation trail facility system plan for the Village and more detailed revitalization and historic preservation plans for the Village and its Historic Village Center.

The master plan, once adopted, should serve as the basis on which all development proposals, such as rezoning requests, preliminary subdivision plats, and certified survey maps, are reviewed. Only those proposals that are consistent with the objectives of the plan should be approved. The adopted Village master plan should be reevaluated as necessary to ensure that it continues to properly reflect current conditions and planning objectives. The Village should reevaluate the plan prior to 2010 and make those modifications, if any, needed to comply with the State of Wisconsin Comprehensive Planning requirements set forth in Section 66.1001 of the *Wisconsin Statutes*.

APPENDICES

Appendix A

SUMMARY OF EXISTING ZONING DISTRICTS FOR THE TOWNS ADJACENT TO THE VILLAGE OF WALES AND WITHIN THE STUDY AREA: 2000

The following tables are summaries of existing zoning ordinances and should not be used as a guide to answer zoning related questions. Refer to official local zoning ordinances for specific zoning requirements.

A. TOWN OF DELAFIELD ZONING

Zoning District	Permitted Principal Uses	Conditional Uses	Minimum Lot Size		Minimum Building Setbacks			Maximum Principal Building Height (feet)
			Total Area	Width (feet)	Street Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
WF-1 Wetland-Floodplain	Grazing, harvesting of wild crops, hunting and fishing, sustained yield forestry, public utilities, outdoor recreation facilities	Cemeteries, fish hatcheries, public and semi-public uses	--	--	100	100	100	30
A-1 Agricultural	All WF-1 permitted uses plus agricultural-related uses, single-family dwellings	Airports and land fields, animal hospitals, kennels, gift shops, cemeteries, religious assemblies, fish hatcheries, commercial greenhouses, elderly housing units, group day care centers, laboratories, mobile home parks, public and semi-public uses, residential planned development	40 acres	200	50	20	20	30
A-2 Rural Home	All A-1 permitted uses	Gift shops, cemeteries, religious assemblies, fish hatcheries, commercial greenhouses, elderly housing units, fur farms, group day care centers, public and semi-public uses, residential planned development	3 acres	200	50	30	30	30
A-3 Suburban Estate	Single-family dwellings, horticulture, outdoor recreation structures	Cemeteries, religious assemblies, fish hatcheries, elderly housing units, group day care centers, public and semi-public uses, residential planned development	2 acres	200	50	25	25	30
R-1 Residential	All A-3 permitted uses	Cemeteries, religious assemblies, fish hatcheries, elderly housing units, public and semi-public uses, residential planned development	1.5 acres	200	50	20	20	30
M-1 Industrial	All A-1 permitted uses (except residential uses) plus industrial and commercial operations	Animal hospitals, kennels, automobile service stations, convenience stores, cemeteries, religious assemblies, fish hatcheries, commercial greenhouses, fur farms, group day care centers, laboratories, hotels, outdoor theaters, public and semi-public uses, quarrying	3 acres	200	100	50	50	30

Source: Town of Delafield Zoning Ordinance and SEWRPC.

B. TOWN OF GENESEE ZONING

Zoning District	Permitted Principal Uses	Conditional Uses	Minimum Lot Size		Minimum Building Setbacks			Maximum Principal Building Height (feet)
			Total Area	Average Width (feet)	Street Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
C-1 Conservancy	Grazing, harvesting of wild crops, sustained yield forestry, dams, hydroelectric power plants, telephone lines, raising of fowl or fish	Airports in nonwetland areas	--	--	--	--	--	--
EC Environmental Corridor	All C-1 permitted uses plus single-family dwellings, keeping of poultry or domestic livestock, hobby kennels	Commercial hatcheries, planned unit developments, private clubs, resorts, public and semi-public uses	5 acres	--	50	35	35	35
A-E Exclusive Agricultural Conservancy	All C-1 permitted uses plus agricultural-related uses, horticulture, roadside stands	Airports, commercial hatcheries, public and semi-public uses	35 acres	--	50	50	50	35
A-B Agricultural Business	Warehousing agricultural commodities, horticulture, cheese factories, veterinarian clinics, agricultural machinery sales and services, poultry and egg production	Airports, gift shops, art studios, commercial kennels, religious assemblies, cemeteries, fur farms, laboratories, private clubs, resorts, public and semi-public uses, quarrying	5 acres	300	50	10	10	35
A-O Existing Agricultural Overlay	--[a]	--[a]	--[a]	--[a]	--[a]	--[a]	--[a]	--[a]
A-1 Agricultural	All A-E permitted uses plus single-family dwellings, home occupations, hobby kennels	Airports, gift shops, art studios, veterinarian clinics, commercial kennels, religious assemblies, cemeteries, fur farms, commercial grain drying operations, laboratories, private clubs, resorts, planned unit developments, public and semi-public uses, restaurants, taverns, quarrying	3 acres	200	50	20	50	35
A-2 Rural Home	Similar to A-1 permitted uses	Airports, gift shops, art studios, veterinarian clinics, commercial kennels, religious assemblies, cemeteries, private clubs, resorts, planned unit developments, public and semi-public uses, restaurants, taverns	3 acres	200	50	30	30	35
A-3 Suburban Estate	Similar to A-1 permitted uses	Same as A-2 conditional uses	2 acres	175	50	25	25	35
R-1 Residential	Similar to A-1 permitted uses	Same as A-2 conditional uses excluding airports	1 acre	150	50	20	20	35
R-3 Residential	All R-1 permitted uses plus multiple-family dwellings	Same as R-1 conditional uses	20,000 square feet	120	50	20	20	35
P-1 Public and Institutional	Hospitals, clinics, schools, treatment facilities, municipal buildings, museums, libraries, other publicly-owned and operated facilities	Gift shops, art studios, veterinarian clinics, commercial kennels, religious assemblies, cemeteries, planned unit developments, private clubs, resorts, quarrying	--	--	50	50	50	35
B-2 Local Business	All R-3 permitted uses plus small retail shops, boarding houses, offices, financial institutions, clinics, restaurants, taverns	Automobile service stations, veterinarian clinics, commercial kennels, religious assemblies, cemeteries, drive-in establishments, mobile home parks, hotels, outdoor theaters, planned unit developments, private clubs, resorts, public and semi-public uses, quarrying	20,000 square feet	120	50	10	10	35

B. TOWN OF GENESEE ZONING (continued)

Zoning District	Permitted Principal Uses	Conditional Uses	Minimum Lot Size		Minimum Building Setbacks			Maximum Principal Building Height (feet)
			Total Area	Average Width (feet)	Street Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
B-3 General Business	All B-2 permitted uses plus wholesalers, distributors, theaters, dance halls, dry cleaning, auto sales and repair, bottling plants, laundromats	Automobile service stations, veterinarian clinics, commercial kennels, religious assemblies, cemeteries, drive-in establishments, planned unit developments, private clubs, resorts, public and semi-public uses, quarrying	20,000 square feet	120	50	10	10	35
Q-1 Quarrying	All A-1 permitted uses	Quarrying, gift shops, art studios, veterinarian clinics, commercial kennels, religious assemblies, cemeteries, private clubs, resorts, planned unit developments, public and semi-public uses, restaurants, taverns	3 acres	200	50[b]	20[b]	20[b]	35
M-1 Limited Industrial	All B-3 and A-1 permitted uses plus light industry	Same as B-3 conditional uses	1 acre	150	50	10	10	60
M-2 General Industrial	All M-1 permitted uses plus other commercial and industrial uses not otherwise prohibited by law	Same as M-1 conditional uses plus salvage yards	1 acre	150	50	10	10	60

[a] *As per underlying basic zoning district requirements.*

[b] *Office buildings for quarry operations shall be set back at least 100 feet from street right-of-way lines and 50 feet from side and rear lot lines. The area to be extracted shall be set back at least 200 feet from street right-of-way lines and all property lines.*

Source: Waukesha County Zoning Code and SEWRPC.

C. TOWN OF OTTAWA ZONING

Zoning District	Permitted Principal Uses	Conditional Uses	Minimum Lot Size		Minimum Building Setbacks			Maximum Principal Building Height (feet)
			Total Area	Average Width (feet)	Street Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
C-1 Conservancy	Grazing, harvesting of wild crops, sustained yield forestry, dams, hydroelectric power plants, telephone lines, raising of fowl or fish	Airports in nonwetland areas	--	--	--	--	--	--
EC Environmental Corridor	All C-1 permitted uses plus single-family dwellings, keeping of poultry or domestic livestock, hobby kennels	Commercial hatcheries, planned unit developments, private clubs, resorts, public and semi-public uses	5 acres	--	50	35	35	35
AD-10 Agricultural Density-10	Agricultural-related uses, single- and two-family dwellings, horticulture, roadside stands, home occupations, hobby kennels	Airports, gift shops, art studios, veterinarian clinics, commercial kennels, religious assemblies, cemeteries, fur farms, commercial grain drying operations, private clubs, resorts, public and semi-public uses, quarrying, restaurants, taverns	1 acre	150	50	20	20	35
A-1 Agricultural	Agricultural-related uses, sustained yield forestry, horticulture, single-family dwellings, roadside stands, home occupations, hobby kennels	Airports, gift shops, art studios, veterinarian clinics, commercial kennels, religious assemblies, cemeteries, fur farms, commercial grain drying operations, laboratories, planned unit developments, private clubs, resorts, public and semi-public uses, quarrying, restaurants, taverns	3 acres	200	50	20	50	35
A-2 Rural Home	Similar to A-1 permitted uses	Airports, gift shops, art studios, veterinarian clinics, commercial kennels, religious assemblies, cemeteries, private clubs, resorts, planned unit developments, public and semi-public uses, restaurants, taverns	3 acres	200	50	30	30	35
A-5 Mini-Farm	All A-1 permitted uses	Airports, gift shops, art studios, veterinarian clinics, commercial kennels, religious assemblies, cemeteries, fur farms, commercial grain drying operations, planned unit developments, private clubs, resorts, public and semi-public uses, quarrying	5 acres	300	50	30	30	35
Q-1 Quarrying	All A-1 permitted uses	Quarrying, gift shops, art studios, veterinarian clinics, commercial kennels, religious assemblies, cemeteries, private clubs, resorts, planned unit developments, public and semi-public uses, restaurants, taverns	3 acres	200	50[a]	20[a]	20[a]	35

[a] *Office buildings for quarry operations shall be set back at least 100 feet from street right-of-way lines and 50 feet from side and rear lot lines. The area to be extracted shall be set back at least 200 feet from street right-of-way lines and all property lines.*

Source: Waukesha County Zoning Code and SEWRPC.

D. TOWN OF SUMMIT ZONING

Zoning District	Permitted Principal Uses	Conditional Uses	Minimum Lot Size		Minimum Building Setbacks			Maximum Principal Building Height (feet)
			Total Area	Average Width (feet)	Street Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
RRE Rural Estate	Single-family dwellings, public parks and recreation areas, crop and tree farming, horticulture, public utility facilities, animal husbandry, home occupations, keeping or raising of domestic livestock	Outdoor recreational facilities, schools, religious institutions, public facilities, private lodges and clubs, country inns and restaurants, nursing homes, homes for the aged, outdoor theaters, additional dwelling units for existing single-family residence	3 acres	250	75	30	30	35
WF Wetland and Floodplain	Grazing, harvesting of wild crops, hunting and fishing, sustained yield forestry, tree farms, dams, hydroelectric power stations, transmission lines, nonresidential buildings for raising fowl and fish, recreational facilities	Crop farming consistent with the preservation of the wetland character, private commercial outdoor recreational facilities, sewage treatment plants	--[a]	--[a]	--[a]	--[a]	--[a]	--[a]

[a] *Established separately in each case.*

Source: Town of Summit Zoning Ordinance and SEWRPC.

Appendix B

SUMMARY OF THE VILLAGE OF WALES COMMUNITY SURVEY RESULTS

Appendix B-1

VILLAGE OF WALES COMMUNITY SURVEY SALIENT FINDINGS

Most Favored Options and Policies:

98% Agree or strongly agree that it is important to **protect woodlands, wetlands, floodlands and other open spaces** in and around the Village.

98% Agree or strongly agree that **traffic circulation, intersection control, and highway access should be managed for safety and reduced congestion.**

97% Agree or strongly agree that it is important to **preserve rural character and agricultural land uses** surrounding the Village.

89% Agree or strongly agree that **greenspace requirements should be increased** for all multi-family, business, and institutional development in the Village.

88% Agree or strongly agree that **commercial land uses should be concentrated** rather than being spread out along Village highways.

85% Agree or strongly agree that the Village should **encourage residential development that preserves open space** (conservation or cluster subdivisions).

85% Agree or strongly agree that the Village should **encourage small professional offices or specialty businesses in the historic center.**

84% Agree or strongly agree that **a few bikeways should be provided** linking residential areas to activity centers and recreational facilities.

81% Agree or strongly agree that **a few walkways should be provided** on at least one side of busy streets.

82% Agree or strongly agree that **a design theme should be used along Main Street** to create a more identifiable and attractive historic center.

79% Agree or strongly agree that the development of **single family housing should be encouraged** in the Village.

76% Say **tranquil residential areas are good**—they have the greatest positive influence on the quality of life in the Village.

75% Agree or strongly agree that **low decorative streetlights should extend along Main Street** into the center/Village Hall area from Highway 83.

Most Disfavored Directions:

94% **Disagree or strongly disagree with multi-family housing** being encouraged for development in the Village.

92% **Disagree or strongly disagree that woodlands or other open spaces may as well be developed,** unless a productive use can be found for them.

89% **Disagree or strongly disagree that the Village should encourage industrial development** (given no public sewer or water presently).

83% Say **increasing traffic is undesirable**—it has the greatest negative influence on the quality of life in the Village.

83% **Disagree or strongly disagree with two-family housing** being encouraged for development in the Village.

81% **Disagree or strongly disagree that people should be able to do whatever they want with land** they own in the Village.

80% **Disagree or strongly disagree that walkways or bikeways would not be utilized** well enough to warrant establishing them around the Village.

77% **Disagree or strongly disagree with allowing free market forces to determine the development pattern**, rather than the Village encouraging particular types of development.

Other Important Observations:

47% **An impressive response rate**, especially given the effort to include tenants occupying rental property, whose tendency to respond is characteristically expected to be lower than owner-occupants.

95% **Most respondents who identified their background were residents** of the Village (88% of all respondents). Three percent of these were resident business operators, while 4% of respondents were business operators only.

0% **Virtually no respondents were under the age of 25** (1 person), while the 40 - 59 year age group comprised 57% of respondents.

20%-31% The four longevity categories represent **a balanced range of respondents in terms of years lived in the Village**. Neither relative "newcomers" or "old-timers" could thus dominate the response trends.

94% Of the responding households having more than one adult, **most indicate consistency in their survey responses** with the others present (87% of all responding households, with 5% unsure and 8% single-person).

96%-99% **Almost all respondents answered the questions** on general land use options and specific directions and policy options.

10% or less Respondents for certain questions on land use and policy options **seldom selected "neutral/no opinion" choices, revealing more strongly held views.**
These options included:

- Encourage multi-family housing
- Concentrated commercial land uses
- Highway/traffic management for safety and reduced congestion
- Preservation of rural character
- Protection of woodlands and other open spaces
- Develop woodlands and other open spaces unless a productive use is found
- People able to do whatever they want with the land they own.

25% or more Respondents for a few land use and policy option questions **regularly selected "neutral/no opinion" choices, revealing some uncertainty in stating views.**
These options included:

- Encourage elderly housing
- Provide more parks/recreational facilities
- More parks/recreational facilities would not be utilized well enough
- Not encouraging small businesses in the historic district
- Extend low decorative street lights on Main Street.

Following is the community survey form that was mailed, with collective data entered. The number of responses received for the optional choices at each question is shown. Because certain questions allowed the selection of multiple options, the response totals may exceed the 434 respondents who returned the survey.

Appendix B-2

VILLAGE OF WALES COMMUNITY SURVEY NUMERIC CHECK-OFF RESULTS

Dear Village of Wales Residents and Business Operators,

The Village Plan Commission, assisted by the Southeastern Wisconsin Regional Planning Commission (SEWRPC), is preparing a land use plan to help guide Village growth and development through the year 2020. The plan will provide a basis for the Village Board and Plan Commission to make informed land use and zoning decisions for the next couple of decades. This survey is being conducted jointly with the University of Wisconsin-Extension and SEWRPC to obtain your opinions on important related issues. Your comments will help to shape the development of the plan.

Please take a few minutes to read through the survey, then answer the questions as best you can. Responses from individual surveys will remain confidential. Written comments are welcome where space provides. When you have completed the survey, please refold and seal the form so that the return address and prepaid postage are showing. As a service to the Village, UW-Extension staff will tabulate the returned surveys and report back to the Plan Commission with their findings.

For your responses to be used in the planning process, please return this form by May 27, 2000.

The Village of Wales thanks you for your cooperation and assistance in this very important matter.

Jeffery Flaws, Village President

RESPONDENT STATUS: Are you completing this survey as a. . .**(check only one)**
382 Resident of the Village 17 Business operator in the Village 11 Both 3 Neither *No Response* 21 *Total Returns* = 434

Note: If you neither live in the Village, nor operate a business there, please stop now and return the survey for our records.

PART A: QUALITY OF LIFE

1. Why do you live in the Village? **(Check up to four items)**

8	Born/raised in the Village	9	Welsh heritage
90	Proximity to employment	86	Affordability
220	Safe/secure community	183	Quality of schools
215	Found a suitable residence	61	Friendly people
96	Parks and natural areas	197	Small-village atmosphere
163	Proximity to Waukesha-Milwaukee metro area	15	Don't live in the Village (local business operator)

1,343 *(No Response = 25)*

2. What has happened to the quality of life in the Village over the past 5 to 10 years? **(Check only one)**

103	Improved	21	No opinion
88	Declined	67	Have lived or operated a business in the Village less than 5 years
132	Remained the same		
411	*(No Response= 23)*		

3. Which items have the greatest **positive** influence on the quality of life in the Village? **(Check up to three that are good)**

103	Fire and police protection	22	Condition of roads
30	Community events/activities	62	Manageable traffic
330	Tranquil residential areas	61	Amount of development occurring (pace is right)
184	Parks and open spaces	140	Availability of shopping/ retail services (appropriate)
93	Private wells and septic systems		
1,025	*(No Response = 21)*		

4. Which items have the greatest **negative** influence on the quality of life in the Village? **(Check up to three that are poor)**

24	Fire and police protection	98	Condition of roads
36	Community events/activities	358	Increasing traffic
4	Isolation of residences	189	Amount of development occurring (too much)
17	Parks and open spaces	29	Availability of shopping/ retail services (inadequate)
55	Lack of public water and sewer services		
810	*(No Response = 28)*		

PART B: VILLAGE GROWTH

1. From 1990 to 1999 the Village's population grew from 2,478 residents to an estimated 2,708 residents, or about 9 percent. The population of the Village should increase at what rate through the year 2020? **(Check only one)**

158	Present rate	122	Slightly slower rate
12	Slightly faster rate	69	Much slower rate
6	Much faster rate	39	No growth
406	*(No Response = 28)*		

2. From 1990 to 1999, total housing units in the Village increased from 736 units to about 850 units, or about 15 percent. Housing units in the Village should increase at what rate through the year 2020? **(Check only one)**

102	Present rate	142	Slightly slower rate
11	Slightly faster rate	101	Much slower rate
5	Much faster rate	46	No growth
407	*(No Response = 27)*		

3. What size, physically, would you like to see the Village in 10 - 20 years if it could grow? **(Check only one)**

158	Present size	197	Somewhat larger
4	Much larger	48	Wish it were smaller
407	*(No Response = 27)*		

4. What best describes your vision of or for the Village? **(Check any that apply)**

168 A small village that should stay that way
213 A community that should add a few quality of life services and recreation/entertainment, which probably means some growth
58 An expanding "bedroom" community of primarily residences, whose occupants mostly work and obtain services elsewhere
21 A bustling business center adding local jobs and serving the greater Wales-Genesee area
11 No opinion
471 *(No Response = 22)*

PART C: GENERAL LAND USE OPTIONS FOR WALES

Please place an "x" in the box after each statement which best represents your opinion about the Village and its potential growth.

STATEMENT **For statements 1, 2, and 3: The Village's housing mix presently consists of about 86% detached single-family units, 6% two-family units, and 8% multi-family units.**	STRONGLY AGREE	AGREE	NEUTRAL/ NO OPINION	DISAGREE	STRONGLY DISAGREE	SUM/TOTAL RESPONSES*
1. The development of **single-family housing units** should be encouraged in the Village.	134	163	51	53	25	426
2. The development of **two-family housing units** should be encouraged in the Village.	7	56	64	166	132	425
3. The development of **multi-family housing units** should be encouraged in the Village.	5	21	26	142	231	425
4. The development of elderly housing should be encouraged in the Village.	34	132	155	66	38	425
5. The development of small single-family housing units affordable to moderate-income families should be encouraged in the Village.	30	106	87	130	74	427
6. The Village should encourage residential development that preserves open space, sometimes called conservation or cluster subdivisions.	145	173	52	33	23	426
7. The Village should encourage the development of office-type businesses.	15	94	92	120	105	426
8. The Village should encourage industrial development. (Presently no public sewer or water services exist.)	11	31	46	162	179	429
9. The Village should encourage commercial (retail and service-oriented) development.	15	122	72	108	104	421
10. Commercial land uses should be concentrated, such as at the intersection of Hwys. 83 and 18, rather than being spread out along the length of Village highways.	140	201	42	27	17	427
11. The Village should not encourage particular types of development, but allow free market forces to determine the pattern.	16	56	98	150	102	422
12. The Village should discourage further development.	64	78	76	164	36	418
13. Traffic circulation, intersection control, and highway access to lands in the Village should be managed for safety and reduced congestion.	216	183	14	6	5	424
14. The Village should provide more parks, playgrounds, and other recreational facilities.	53	133	121	102	16	425
15. Parks and recreational facilities in the Village would not be utilized well enough to warrant providing more.	34	115	108	129	41	427
16. The preservation of rural character and agricultural land uses surrounding the Village is important.	223	157	31	13	1	425
17. The protection of woodlands, wetlands, floodlands, and other open spaces in and around the Village is important.	277	128	19	3	3	430
18. Unless a productive use can be found for woodlands or other upland open spaces in and around the Village, they may as well be developed.	9	24	34	133	228	428
19. Comments on land use options: *See note on question E.6.*						

**The number of nonrespondents are represented by the difference between 434 total survey returns and the sum/total responses for each statement.*

PART D: SPECIFIC DIRECTIONS AND POLICY OPTIONS

Please place an "x" in the box after each statement which best represents your opinion.

STATEMENT	STRONGLY AGREE	AGREE	NEUTRAL /NO OPINION	DISAGREE	STRONGLY DISAGREE	SUM//TOTAL RESPONSES*
1. A design theme should be used to create a more identifiable and attractive historic center with, for example, the feel of a Welsh village along Main St. near the Village Hall and Glacial Drumlin Trailhead.	94	178	96	34	25	427
2. For its Main St. area historic center, the Village should encourage small professional offices or specialties such as antique stores, studios, trailside bike shop, bed & breakfast, or bakery, that would not need or generate high traffic.	116	206	49	33	24	428
3. The Village should not encourage additional small businesses to be located in the historic center.	33	77	115	158	41	424
4. To help unify the historic center and provide a sense of location from Hwy. 83, low decorative streetlights should extend along Main St. into the center/Village Hall area.	68	172	111	52	25	428
5. A few walkways should be provided on at least one side of busy streets connecting residential areas to activity centers such as schools, playfields, future community center, Glacial Drumlin Trail, and shopping areas.	114	195	50	42	28	429
6. A few bikeways should be provided that would link residential areas not only to key activity centers, but also to the Kettle Moraine State Forest, Lake Country Trail, and Lapham Peak and Nagawaukee Parks.	112	187	67	40	23	429
7. Walkways or bikeways around the Village would not be utilized well enough to warrant establishing them.	27	45	75	183	93	423
8. Greenspace requirements in the Village should be increased for all new multi-family, business, and institutional development.	125	163	95	26	10	419
9. Comprehensive landscape and architectural design standards should be established for all new multi-family, business, and institutional development in the Village.	132	170	65	39	18	424
10. People should be able to do whatever they want with land they own in the Village.	37	36	40	174	139	426

**The number of nonrespondents are represented by the difference between 434 total survey returns and the sum/total responses for each statement.*

PART E: RESIDENT PROFILE AND COMMENTS
(Nonresident business operators, skip to question No. 6)

1. Where do your main household income earners work?
(Check only primary or substantial employment locations)

39 At home
20 Elsewhere in the Village
241 Other locations in Waukesha County
127 Locations outside Waukesha County
24 Numerous locations on the road
451 *(No Response = 50)*

2. What is the occupation of your main household income earners?
(Check substantial employment categories only)

213 Professional/Admin.
77 Skilled Trade/Craft
43 Sales
9 Factory
7 General Labor
19 Clerical/Office
18 Services
47 Education/Government
52 Retired
1 Not employed
486 *(No Response = 24)*

3. What is your age group? **(Check only one)**

1 Less than 25 years
104 25-39 years
233 40-59 years
70 60 or more years
408 *(No Response = 26)*

4. How long have you lived in the Village? **(Check only one)**

91 Less than 5 years
81 5 to 9 years
126 10 to 19 years
11220 or more years
410 *(No Response = 24)*

5. Do you feel your responses in this survey are consistent with other adults who may be part of your household?

353 Yes
21 Unsure
0 No
33 Single person household
407 *(No Response = 27)*

6. Any other comments? (Insert sheets as needed)_____
176 Surveys with comments
325 Total comments

Following is the community survey form that was mailed, with collective data entered. The total number of responses received for the optional choices at each question is the basis for calculating percentages. Because certain questions allowed the selection of multiple options, their response totals are higher and percentages corresponding to any given option appear lower than might be expected.

Appendix B-3

VILLAGE OF WALES COMMUNITY SURVEY RAW PERCENT RESULTS

Dear Village of Wales Residents and Business Operators,

The Village Plan Commission, assisted by the Southeastern Wisconsin Regional Planning Commission (SEWRPC), is preparing a land use plan to help guide Village growth and development through the year 2020. The plan will provide a basis for the Village Board and Plan Commission to make informed land use and zoning decisions for the next couple of decades. This survey is being conducted jointly with the University of Wisconsin-Extension and SEWRPC to obtain your opinions on important related issues. Your comments will help to shape the development of the plan.

Please take a few minutes to read through the survey, then answer the questions as best you can. Responses from individual surveys will remain confidential. Written comments are welcome where space provides. When you have completed the survey, please refold and seal the form so that the return address and prepaid postage are showing. As a service to the Village, UW-Extension staff will tabulate the returned surveys and report back to the Plan Commission with their findings.

For your responses to be used in the planning process, please return this form by May 27, 2000.

The Village of Wales thanks you for your cooperation and assistance in this very important matter.

Jeffery Flaws, Village President

RESPONDENT STATUS: Are you completing this survey as a. . .**(check only one)**
88% Resident of the Village 4% Business operator in the Village 3% Both 1% Neither *No Response* 5% *Total Returns* = 434

Note: If you neither live in the Village, nor operate a business there, please stop now and return the survey for our records.

PART A: QUALITY OF LIFE

1. Why do you live in the Village? **(Check up to four items)**

1%	Born/raised in the Village	1%	Welsh heritage
7%	Proximity to employment	6%	Affordability
16%	Safe/secure community	14%	Quality of schools
16%	Found a suitable residence	5%	Friendly people
7%	Parks and natural areas	15%	Small-village atmosphere
12%	Proximity to Waukesha-Milwaukee metro area	1%	Don't live in the Village (local business operator)

1,343

2. What has happened to the quality of life in the Village over the past 5 to 10 years? **(Check only one)**

25%	Improved	5%	No opinion
21%	Declined	16%	Have lived or operated a business in the Village less than 5 years
32%	Remained the same		

411

3. Which items have the greatest **positive** influence on the quality of life in the Village? **(Check up to three that are good)**

10%	Fire and police protection	2%	Condition of roads
3%	Community events/activities	6%	Manageable traffic
32%	Tranquil residential areas	6%	Amount of development occurring (pace is right)
18%	Parks and open spaces		
9%	Private wells and septic systems	14%	Availability of shopping/ retail services appropriate

1,025

4. Which items have the greatest **negative** influence on the quality of life in the Village? **(Check up to three that are poor)**

3%	Fire and police protection	12%	Condition of roads
4%	Community events/activities	44%	Increasing traffic
0%	Isolation of residences	23%	Amount of development occurring (too much)
2%	Parks and open spaces		
7%	Lack of public water and sewer services	4%	Availability of shopping/ retail services (inadequate)

810

PART B: VILLAGE GROWTH

1. From 1990 to 1999 the Village's population grew from 2,478 residents to an estimated 2,708 residents, or about 9 percent. The population of the Village should increase at what rate through the year 2020? **(Check only one)**

39%	Present rate	30%	Slightly slower rate
3%	Slightly faster rate	17%	Much slower rate
1%	Much faster rate	10%	No growth

406

2. From 1990 to 1999, total housing units in the Village increased from 736 units to about 850 units, or about 15 percent. Housing units in the Village should increase at what rate through the year 2020? **(Check only one)**

25%	Present rate	35%	Slightly slower rate
3%	Slightly faster rate	25%	Much slower rate
1%	Much faster rate	11%	No growth

407

3. What size, physically, would you like to see the Village in 10 - 20 years if it could grow? **(Check only one)**

39%	Present size	48%	Somewhat larger
1%	Much larger	12%	Wish it were smaller

407

4. What best describes your vision of or for the Village? **(Check any that apply)**

36% A small village that should stay that way
45% A community that should add a few quality of life services and recreation/entertainment, which probably means some growth
12% An expanding "bedroom" community of primarily residences, whose occupants mostly work and obtain services elsewhere
4% A bustling business center adding local jobs and serving the greater Wales-Genesee area
2% No opinion

471

PART C: GENERAL LAND USE OPTIONS FOR WALES

Please place an "x" in the box after each statement which best represents your opinion about the Village and its potential growth.

STATEMENT **For statements 1, 2, and 3: The Village's housing mix presently consists of about 86% detached single-family units, 6% two-family units, and 8% multi-family units.**	STRONGLY AGREE	AGREE	NEUTRAL/ NO OPINION	DISAGREE	STRONGLY DISAGREE	SUM/TOTAL RESPONSES
1. The development of **single-family housing units** should be encouraged in the Village.	31%	38%	12%	12%	6%	426
2. The development of **two-family housing units** should be encouraged in the Village.	2%	13%	15%	39%	31%	425
3. The development of **multi-family housing units** should be encouraged in the Village.	1%	5%	6%	33%	54%	425
4. The development of elderly housing should be encouraged in the Village.	8%	31%	36%	16%	9%	425
5. The development of small single-family housing units affordable to moderate-income families should be encouraged in the Village.	7%	25%	20%	30%	17%	427
6. The Village should encourage residential development that preserves open space, sometimes called conservation or cluster subdivisions.	34%	41%	12%	8%	5%	426
7. The Village should encourage the development of office-type businesses.	4%	22%	22%	28%	25%	426
8. The Village should encourage industrial development. (Presently no public sewer or water services exist.)	3%	7%	11%	38%	42%	429
9. The Village should encourage commercial (retail and service-oriented) development.	4%	29%	17%	26%	25%	421
10. Commercial land uses should be concentrated, such as at the intersection of Hwys. 83 and 18, rather than being spread out along the length of Village highways.	33%	47%	10%	6%	4%	427
11. The Village should not encourage particular types of development, but allow free market forces to determine the pattern.	4%	13%	23%	36%	24%	422
12. The Village should discourage further development.	15%	19%	18%	39%	9%	418
13. Traffic circulation, intersection control, and highway access to lands in the Village should be managed for safety and reduced congestion.	51%	43%	3%	1%	1%	424
14. The Village should provide more parks, playgrounds, and other recreational facilities.	12%	31%	28%	24%	4%	425
15. Parks and recreational facilities in the Village would not be utilized well enough to warrant providing more.	8%	27%	25%	30%	10%	427
16. The preservation of rural character and agricultural land uses surrounding the Village is important.	52%	37%	7%	3%	0%	425
17. The protection of woodlands, wetlands, floodlands, and other open spaces in and around the Village is important.	64%	30%	4%	1%	1%	430
18. Unless a productive use can be found for woodlands or other upland open spaces in and around the Village, they may as well be developed.	2%	6%	8%	31%	53%	428
19. Comments on land use options: *See note on question E.6.*						

PART D: SPECIFIC DIRECTIONS AND POLICY OPTIONS

Please place an "x" in the box after each statement which best represents your opinion.

STATEMENT	STRONGLY AGREE	AGREE	NEUTRAL /NO OPINION	DISAGREE	STRONGLY DISAGREE	SUM//TOTAL RESPONSES
1. A design theme should be used to create a more identifiable and attractive historic center with, for example, the feel of a Welsh village along Main St. near the Village Hall and Glacial Drumlin Trailhead.	22%	42%	22%	8%	6%	427
2. For its Main St. area historic center, the Village should encourage small professional offices or specialties such as antique stores, studios, trailside bike shop, bed & breakfast, or bakery, that would not need or generate high traffic.	27%	48%	11%	8%	6%	428
3. The Village should not encourage additional small businesses to be located in the historic center.	8%	18%	27%	37%	10%	424
4. To help unify the historic center and provide a sense of location from Hwy. 83, low decorative streetlights should extend along Main St. into the center/Village Hall area.	16%	40%	26%	12%	6%	428
5. A few walkways should be provided on at least one side of busy streets connecting residential areas to activity centers such as schools, playfields, future community center, Glacial Drumlin Trail, and shopping areas.	27%	45%	12%	10%	7%	429
6. A few bikeways should be provided that would link residential areas not only to key activity centers, but also to the Kettle Moraine State Forest, Lake Country Trail, and Lapham Peak and Nagawaukee Parks.	26%	44%	16%	9%	5%	429
7. Walkways or bikeways around the Village would not be utilized well enough to warrant establishing them.	6%	11%	18%	43%	22%	423
8. Greenspace requirements in the Village should be increased for all new multi-family, business, and institutional development.	30%	39%	23%	6%	2%	419
9. Comprehensive landscape and architectural design standards should be established for all new multi-family, business, and institutional development in the Village.	31%	40%	15%	9%	4%	424
10. People should be able to do whatever they want with land they own in the Village.	9%	8%	9%	41%	33%	426

PART E: RESIDENT PROFILE AND COMMENTS
(Nonresident business operators, skip to question No. 6)

1. Where do your main household income earners work?
(Check only primary or substantial employment locations)
9% At home
4% Elsewhere in the Village
53% Other locations in Waukesha County
28% Locations outside Waukesha County
5% Numerous locations on the road
451

2. What is the occupation of your main household income earners? **(Check substantial employment categories only)**
44% Professional/Admin.
16% Skilled Trade/Craft
9% Sales
2% Factory
1% General Labor
4% Clerical/Office
4% Services
10% Education/Government
11% Retired
0% Not employed
486

3. What is your age group? **(Check only one)**
0% Less than 25 years
25% 25-39 years
57% 40-59 years
17% 60 or more years
408

4. How long have you lived in the Village? **(Check only one)**
22% Less than 5 years
20% 5 to 9 years
31% 10 to 19 years
27% 20 or more years
410

5. Do you feel your responses in this survey are consistent with other adults who may be part of your household?
87% Yes
5% Unsure
0% No
8% Single person household
407

6. Any other comments? (Insert sheets as needed)_____
176 Surveys with comments
41% of total respondents

Following is the community survey form that was mailed, with collective data entered. The portion of respondents actually selecting the optional choices at each question is generally the basis for calculating percentages, in addition to revealed preferences which exclude "No Opinion". Where multiple options could be selected, the total respondents available to make choices governed the calculations.

Appendix B-4

VILLAGE OF WALES COMMUNITY SURVEY ANALYZED PERCENT RESULTS

Dear Village of Wales Residents and Business Operators,

The Village Plan Commission, assisted by the Southeastern Wisconsin Regional Planning Commission (SEWRPC), is preparing a land use plan to help guide Village growth and development through the year 2020. The plan will provide a basis for the Village Board and Plan Commission to make informed land use and zoning decisions for the next couple of decades. This survey is being conducted jointly with the University of Wisconsin-Extension and SEWRPC to obtain your opinions on important related issues. Your comments will help to shape the development of the plan.

Please take a few minutes to read through the survey, then answer the questions as best you can. Responses from individual surveys will remain confidential. Written comments are welcome where space provides. When you have completed the survey, please refold and seal the form so that the return address and prepaid postage are showing. As a service to the Village, UW-Extension staff will tabulate the returned surveys and report back to the Plan Commission with their findings.

For your responses to be used in the planning process, please return this form by May 27, 2000.

The Village of Wales thanks you for your cooperation and assistance in this very important matter.

Jeffery Flaws, Village President

RESPONDENT STATUS: Are you completing this survey as a. . .**(check only one)**
92% Resident of the Village 4% Business operator in the Village 3% Both 1% Neither *Sum of responses =* 413
(of 434 total returns)

Note: If you neither live in the Village, nor operate a business there, please stop now and return the survey for our records.

PART A: QUALITY OF LIFE

1. Why do you live in the Village? **(Check up to four items)**

2%	Born/raised in the Village	2%	Welsh heritage
21%	Proximity to employment	20%	Affordability
51%	Safe/secure community	42%	Quality of schools
50%	Found a suitable residence	14%	Friendly people
22%	Parks and natural areas	45%	Small-village atmosphere
38%	Proximity to Waukesha Milwaukee metro area	3%	Don't live in the Village (local business operator)

434 *(Total respondents available to choose items for %)*

2. What has happened to the quality of life in the Village over the past 5 to 10 years? **(Check only one)**

26%	Improved	*	No opinion (Omitted for %)
23%	Declined	17%	Have lived or operated a business in the Village less than 5 years
34%	Remained the same		

390

3. Which items have the greatest **positive** influence on the quality of life in the Village? **(Check up to three that are good)**

24%	Fire and police protection	5%	Condition of roads
7%	Community events/activities	14%	Manageable traffic
76%	Tranquil residential areas	14%	Amount of development occurring (pace is right)
42%	Parks and open spaces		
21%	Private wells and septic systems	32%	Availability of shopping/ retail services appropriate

434 *(Total respondents available to choose items for %)*

4. Which items have the greatest **negative** influence on the quality of life in the Village? **(Check up to three that are poor)**

6%	Fire and police protection	23%	Condition of roads
8%	Community events/activities	83%	Increasing traffic
1%	Isolation of residences	44%	Amount of development occurring (too much)
4%	Parks and open spaces		
13%	Lack of public water and sewer services	7%	Availability of shopping/ retail services (inadequate)

434 *(Total respondents available to choose items for %)*

PART B: VILLAGE GROWTH

1. From 1990 to 1999 the Village's population grew from 2,478 residents to an estimated 2,708 residents, or about 9 percent. The population of the Village should increase at what rate through the year 2020? **(Check only one)**

39%	Present rate	30%	Slightly slower rate
3%	Slightly faster rate	17%	Much slower rate
1%	Much faster rate	10%	No growth

406

2. From 1990 to 1999, total housing units in the Village increased from 736 units to about 850 units, or about 15 percent. Housing units in the Village should increase at what rate through the year 2020? **(Check only one)**

25%	Present rate	35%	Slightly slower rate
3%	Slightly faster rate	25%	Much slower rate
1%	Much faster rate	11%	No growth

407

3. What size, physically, would you like to see the Village in 10 - 20 years if it could grow? **(Check only one)**

39%	Present size	48%	Somewhat larger
1%	Much larger	12%	Wish it were smaller

407

4. What best describes your vision of or for the Village? **(Check any that apply)**
37% A small village that should stay that way
46% A community that should add a few quality of life services and recreation/entertainment, which probably means some growth
13% An expanding "bedroom" community of primarily residences, whose occupants mostly work and obtain services elsewhere
5% A bustling business center adding local jobs and serving the greater Wales-Genesee area
* No opinion *(Omitted for calculating percentages and analysis)*

460

PART C: GENERAL LAND USE OPTIONS FOR WALES

Please place an "x" in the box after each statement which best represents your opinion about the Village and its potential growth.

STATEMENT For statements 1, 2, and 3: The Village's housing mix presently consists of about 86% detached single-family units, 6% two-family units, and 8% multi-family units.	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	SUM OF THOSE GIVING AN OPINION*
1. The development of **single-family housing units** should be encouraged in the Village.	36%	43%	14%	7%	375
2. The development of **two-family housing units** should be encouraged in the Village.	2%	16%	46%	37%	361
3. The development of **multi-family housing units** should be encouraged in the Village.	1%	5%	36%	58%	399
4. The development of elderly housing should be encouraged in the Village.	13%	49%	24%	14%	270
5. The development of small single-family housing units affordable to moderate-income families should be encouraged in the Village.	9%	31%	38%	22%	340
6. The Village should encourage residential development that preserves open space, sometimes called conservation or cluster subdivisions.	39%	46%	9%	6%	374
7. The Village should encourage the development of office-type businesses.	4%	28%	36%	31%	334
8. The Village should encourage industrial development. (Presently no public sewer or water services exist.)	3%	8%	42%	47%	383
9. The Village should encourage commercial (retail and service-oriented) development.	4%	35%	31%	30%	349
10. Commercial land uses should be concentrated, such as at the intersection of Hwys. 83 and 18, rather than being spread out along the length of Village highways.	36%	52%	7%	4%	385
11. The Village should not encourage particular types of development, but allow free market forces to determine the pattern.	5%	17%	46%	31%	324
12. The Village should discourage further development.	19%	23%	48%	11%	342
13. Traffic circulation, intersection control, and highway access to lands in the Village should be managed for safety and reduced congestion.	53%	45%	1%	1%	410
14. The Village should provide more parks, playgrounds, and other recreational facilities.	17%	44%	34%	5%	304
15. Parks and recreational facilities in the Village would not be utilized well enough to warrant providing more.	11%	36%	40%	13%	319
16. The preservation of rural character and agricultural land uses surrounding the Village is important.	57%	40%	3%	0%	394
17. The protection of woodlands, wetlands, floodlands, and other open spaces in and around the Village is important.	67%	31%	1%	1%	411
18. Unless a productive use can be found for woodlands or other upland open spaces in and around the Village, they may as well be developed.	2%	6%	34%	58%	394
19. Comments on land use options: *See note on question E.6.*					

**"Neutral/No Opinion" responses omitted for calculating percentages and analysis.*

PART D: SPECIFIC DIRECTIONS AND POLICY OPTIONS

Please place an "x" in the box after each statement which best represents your opinion.

STATEMENT	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	SUM OF THOSE GIVING AN OPINION*
1. A design theme should be used to create a more identifiable and attractive historic center with, for example, the feel of a Welsh village along Main St. near the Village Hall and Glacial Drumlin Trailhead.	28%	54%	10%	8%	331
2. For its Main St. area historic center, the Village should encourage small professional offices or specialties such as antique stores, studios, trailside bike shop, bed & breakfast, or bakery, that would not need or generate high traffic.	31%	54%	9%	6%	379
3. The Village should not encourage additional small businesses to be located in the historic center.	11%	25%	51%	13%	309
4. To help unify the historic center and provide a sense of location from Hwy. 83, low decorative streetlights should extend along Main St. into the center/Village Hall area.	21%	54%	16%	8%	317
5. A few walkways should be provided on at least one side of busy streets connecting residential areas to activity centers such as schools, playfields, future community center, Glacial Drumlin Trail, and shopping areas.	30%	51%	11%	7%	379
6. A few bikeways should be provided that would link residential areas not only to key activity centers, but also to the Kettle Moraine State Forest, Lake Country Trail, and Lapham Peak and Nagawaukee Parks.	31%	52%	11%	6%	362
7. Walkways or bikeways around the Village would not be utilized well enough to warrant establishing them.	8%	13%	53%	27%	348
8. Greenspace requirements in the Village should be increased for all new multi-family, business, and institutional development.	39%	50%	8%	3%	324
9. Comprehensive landscape and architectural design standards should be established for all new multi-family, business, and institutional development in the Village.	37%	47%	11%	5%	359
10. People should be able to do whatever they want with land they own in the Village.	10%	9%	45%	36%	386

**"Neutral/No Opinion" responses omitted for calculating percentages and analysis.*

PART E: RESIDENT PROFILE AND COMMENTS
(Nonresident business operators, skip to question No. 6)

1. Where do your main household income earners work?
   (Check only primary or substantial employment locations)
   - 9% At home
   - 4% Elsewhere in the Village
   - 53% Other locations in Waukesha County
   - 28% Locations outside Waukesha County
   - 5% Numerous locations on the road

   451

2. What is the occupation of your main household income earners?
   (Check substantial employment categories only)

44% Professional/Admin.	4% Clerical/Office
16% Skilled Trade/Craft	4% Services
9% Sales	10% Education/Government
2% Factory	11% Retired
1% General Labor	0% Not employed

   486

3. What is your age group? **(Check only one)**

0% Less than 25 years	57% 40-59 years
25% 25-39 years	17% 60 or more years

   408

4. How long have you lived in the Village? **(Check only one)**

22% Less than 5 years	31% 10 to 19 years
20% 5 to 9 years	27% 20 or more years

   410

5. Do you feel your responses in this survey are consistent with other adults who may be part of your household?

87% Yes	0% No
5% Unsure	8% Single person household

   407

6. Any other comments? (Insert sheets as needed)_____
   176 Surveys with comments
   41% of total respondents

Appendix C

DESIGN GUIDELINES

Good general land use planning alone does not ensure a safe and attractive community, since the detailed layout and design of any development is also crucial. To help direct proposed development and redevelopment activities in the Village of Wales and its Historic Village Center, basic design guidelines should be established. The guidelines presented herein are intended to serve as a basis for determining desired physical development layouts and appearances, and not as inflexible, rigid, and narrow rules that may stifle innovative design alternatives. These guidelines should be used by Village officials to provide guidance to applicants and to assist in the evaluation of development proposals including site, landscaping, and building plans.

BASIC URBAN AND SITE PLANNING DESIGN GUIDELINES

Neighborhoods

Neighborhood Units

Neighborhoods should be developed in a spatially organized manner around a central feature, or focal point, such as a neighborhood park or elementary school, to promote a sense of physical unity as a planned unit rather than a large, formless, and unidentifiable mass.

Neighborhood Identification

Delineated neighborhood units, insofar as is practicable, should be bounded by arterial streets; major parks, greenways, or institutional lands; bodies of water or waterways; or other natural or cultural features which serve to clearly define and physically distinguish each unit from the surrounding units. A name should be selected for each neighborhood based on a distinct land feature or land use character, including historic heritage, to provide a sense of identity.

Neighborhood Facilities

The location and amount of land needed for neighborhood facilities should be based, in part, on the standards specified in Tables 26 and 27 of Chapter VI. Recreational lands at the neighborhood level should be centrally located to provide a focal point for neighborhood interaction and activities and should be developed, whenever possible, in conjunction with a neighborhood elementary school site. The elementary school and recreational facilities should be provided on a common site available to serve the recreation demands of both the school students and the resident neighborhood population. Individual recreational facility requirements should be based upon the values listed in Table 28 of Chapter VI.

Neighborhood Access to Facilities

Residents of neighborhoods should be provided safe and convenient access to parks, schools, shopping centers, employment areas, and other community facilities. The walking and bicycling distances to these facilities should not exceed the maximum distance standards established in Table 27. Bicycle and pedestrian ways should be connected to or be a part of a trail system that provides access for both utilitarian and recreational purposes. Neighborhoods should also have ready access to an arterial street system, and, thereby, to urban activities and services, through an internal network of minor and collector streets designed to facilitate vehicular circulation as well as bicycle and pedestrian circulation, while discouraging heavy volumes of arterial traffic through the neighborhood.

Streets, Bicycle, and Pedestrian Facilities[1]

Street Cross-Sections

The Village's desired cross-section designs for streets as well as bicycle and pedestrian ways are graphically shown in Figure C-1. Collector and minor land-access streets can generally accommodate bicycle travel without widening the roadway due to the usually low traffic speeds and volumes. Concrete sidewalks or asphalt pedestrian paths should be provided in accordance with a community's pedestrian and bicycle facilities system plan, since only certain identified street rights-of-way in the plan would be provided with these facilities in order to retain the rural, country character and yet make some provision for safe access to trails, parks, schools, shopping areas, and other points of interest.

Roadside Swales and Curbing

Most streets within the Village use roadside swales without curbing for stormwater drainage, which conveys a more rural appearance. Side slopes of roadside swales should preferably not exceed one foot vertically to every four feet horizontally, but no steeper than one to three. Side slopes steeper than one to four are not only more difficult to mow, but do not blend well with natural land forms.

Curbing should be provided at street intersections and in certain other areas, where necessary, for proper stormwater management. Such curbing should preferably be mountable curbs, also referred to as roll-face curbs as shown in Figure C-2, which projects a less rigid, harsh edge than vertical-faced curbs, which have a more urban appearance.

Street Grades

Unless necessitated by exceptional topography, the maximum grade of any street should not exceed 6 percent for arterial and collector streets, and 10 percent for minor land-access streets, alleys, and frontage streets. The grade of any street should in no case exceed 10 percent. The minimum grade of any street should preferably be 0.75 percent, and in no case be less than 0.50 percent, except those with curb and gutter may contain a minimum grade of 0.30 percent where the surrounding terrain dictates. The grade of road crowns should be no less than 1.5 percent with a desirable grade of 2 percent and a maximum grade of 3 percent. The change in grade across a street intersection within 100 feet of the centerline should desirably not exceed 3 percent where practical. All street grades should be established so as to avoid excessive grading, the promiscuous removal of ground cover and trees, and indiscriminate leveling of the terrain.

Street Intersections

Streets should intersect each other as nearly right angles as topography and other limiting factors of good design permit. Angles above approximately 60 degrees usually produce only a small reduction in visibility, which often does not warrant realignment closer to 90 degrees. In addition, the number of streets converging at one intersection should be held to a minimum, preferably to not more than two streets at one intersection; the location of street intersections immediately below the crest of hills should be avoided; the number of intersections along arterial streets and highways should be held to a minimum; and the distance between such intersections should generally not be less than 1,200 feet measured from the centerline of each street. Minor land-access street openings onto arterial streets should be minimized to improve traffic flow and reduce traffic hazards.

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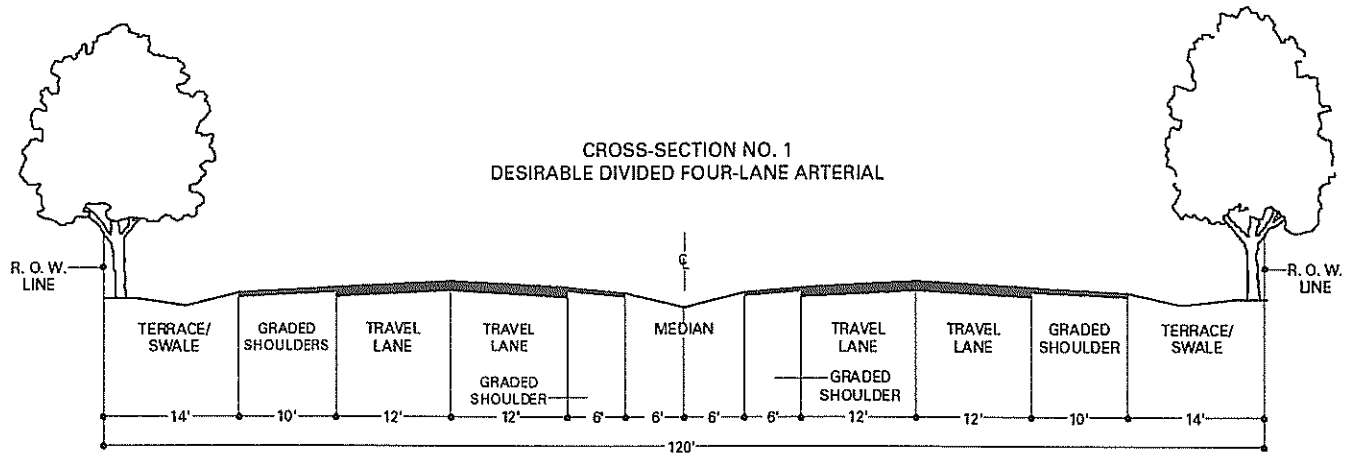
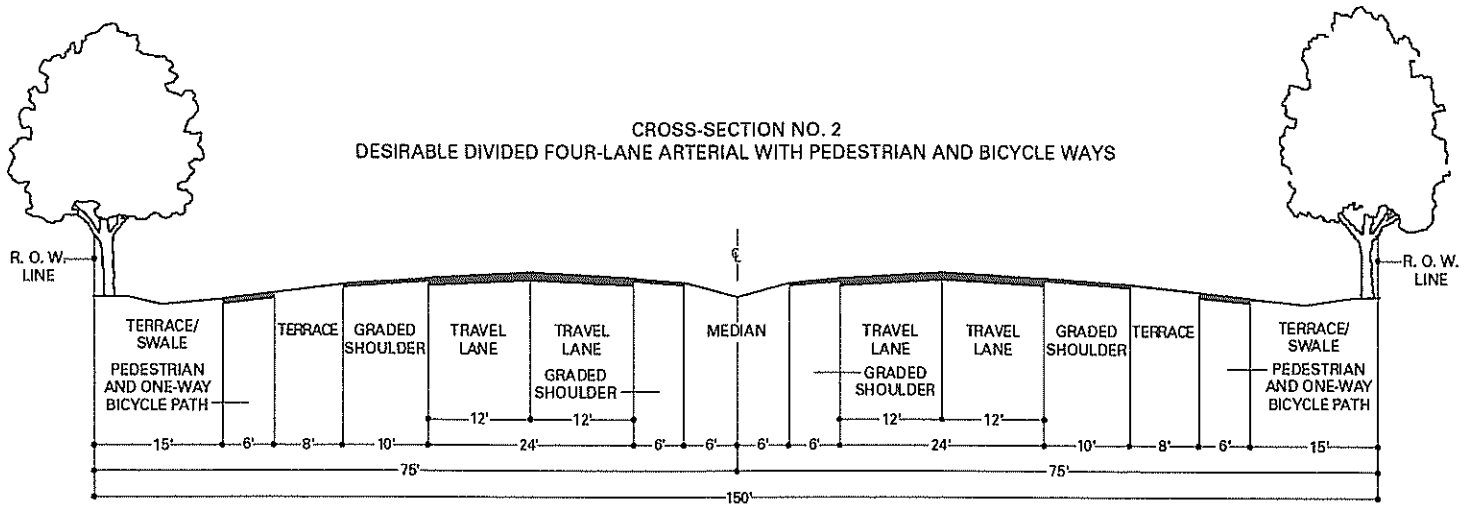
[1]*The design guidelines set forth in this section are not intended to serve as a comprehensive guide to the design of streets and highways, including those accommodating bicycle and pedestrian facilities, but are intended to suggest the general type of design treatments that may be appropriate in certain situations. Precise design specification should be determined during engineering studies for specific street, highway, and bicycle-way projects, and should be based, in part, on the recommendations contained in the most recent edition of* A Policy on Geometric Design of Highways and Streets *and the* Guide for the Development of Bicycle Facilities, *both published by the American Association of State Highway and Transportation Officials, and the* Manual on Uniform Traffic Control Devices, *published by the U.S. Department of Transportation, Federal Highway Administration.*

Figure C-1

TYPICAL CROSS-SECTIONS FOR STREETS, HIGHWAYS, BICYCLE WAYS, AND PEDESTRIAN WAYS IN THE VILLAGE OF WALES[1]



NOTE: IF BICYCLE WAYS ARE TO BE PROVIDED, A MINIMUM OF FOUR FEET, WITH A PREFERENCE OF FIVE TO SIX FEET, OF EACH SHOULDER SHOULD BE PAVED AND DISTINGUISHED FROM THE OUTSIDE EDGE OF THE TRAVEL LANE BY A 6-INCH WIDE SOLID WHITE STRIPE.

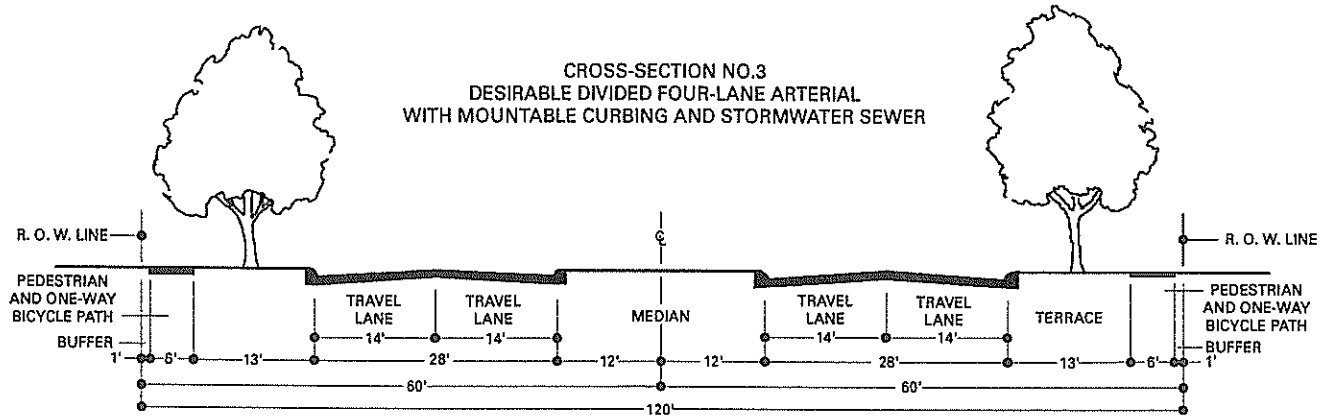


NOTE: AN 8-FOOT WIDE TWO-DIRECTIONAL PEDESTRIAN AND BICYCLE PATH (WHERE LESS THAN 50 USERS ARE ANTICIPATED DURING THE PEAK-USE HOUR) ON ONE OR BOTH SIDES OF THE ROADWAY MAY BE PROVIDED IN PLACE OF THE TWO PEDESTRIAN AND ONE-WAY BICYCLE PATHS SHOWN. A MINIMUM 10-FOOT WIDE PATH SHOULD BE PROVIDED WHERE MORE THAN 50 USERS ARE ANTICIPATED.

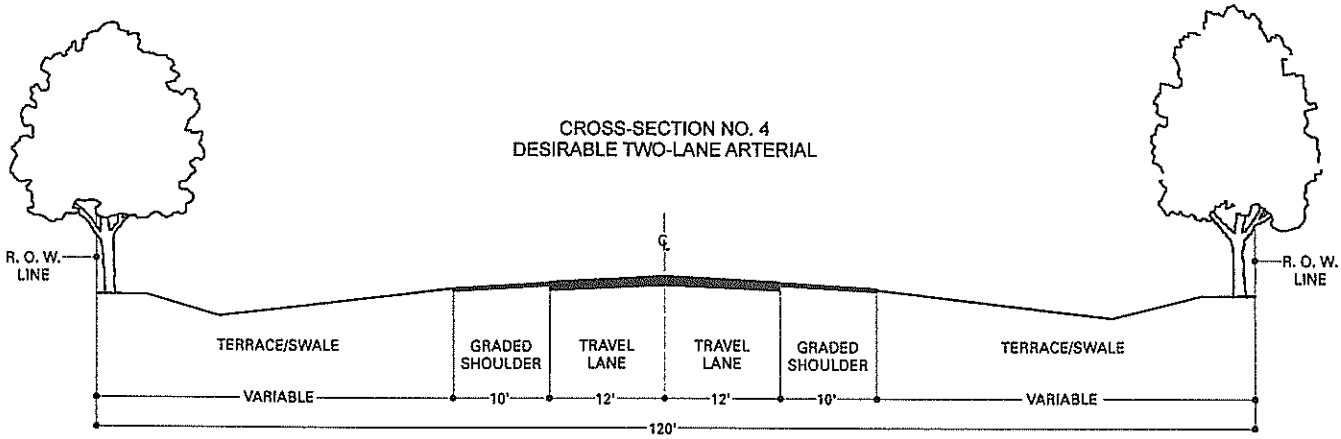
Property lines at street intersections should be rounded to an arc with a minimum radius of 15 feet, or, preferably, should be cut off by a straight line through the points of tangency of an arc having a radius of 15 feet or greater. This dimension may need to be increased or an easement should be provided if unique landscaping is proposed at street corners such as those for defining a main entryway into a subdivision or a "gateway" into the community or historic Village Center while still recognizing traffic vision requirements. At street intersections, as a general guide, the minimum radius of curb return, where curbs are used, or of the outside edge of pavement, where curbs are not used, should be at least 15 feet or, preferably, 20 feet. This radius may need to be increased to meet the minimum turning radii of various motor vehicles as illustrated in Figure C-3.

Street lights should be provided at all major arterial street intersections for both safety and directional purposes.

Figure C-1 (continued)



NOTE: A TWO-DIRECTIONAL PEDESTRIAN AND BICYCLE PATH (SEE CROSS-SECTION NO.7 AND ATTENDANT NOTE) ON ONE OR BOTH SIDES OF THE ROADWAY MAY BE PROVIDED IN PLACE OF THE TWO PEDESTRIAN AND ONE-WAY BICYCLE PATHS SHOWN.



NOTE: IF BICYCLE WAYS ARE TO BE PROVIDED, A MINIMUM OF FOUR FEET, WITH A PREFERENCE OF FIVE TO SIX FEET, OF EACH SHOULDER SHOULD BE PAVED AND DISTINGUISHED FROM THE OUTSIDE EDGE OF THE TRAVEL LANE BY A 6-INCH WIDE SOLID WHITE STRIPE.

Street Jogs

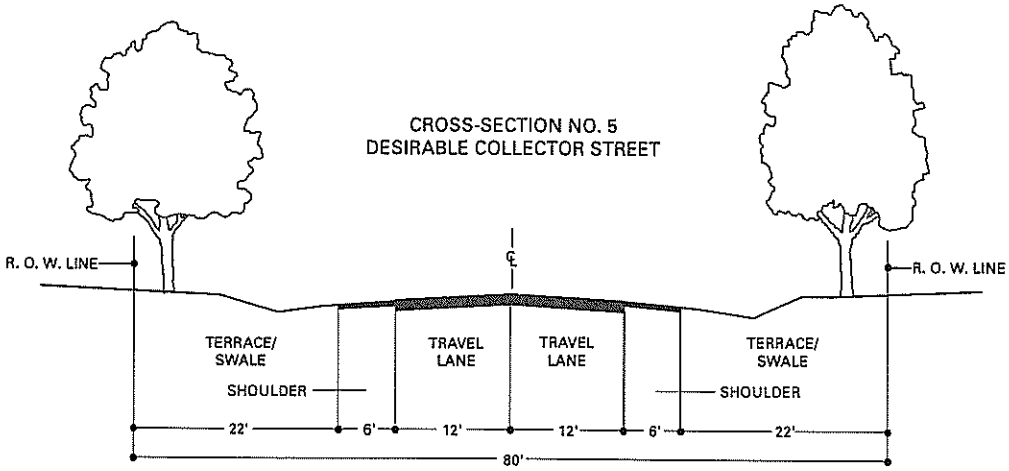
Street jogs with centerline offsets of less than 250 feet along arterial streets or less than 125 feet along nonarterial streets should be avoided. Minor and collector streets need not necessarily continue across arterial streets.

Street Curvatures

When a continuous street centerline deflects at any point by more than seven degrees, a circular curve should be introduced with a radius of curvature on the centerline of not less than the following: arterial streets, 500 feet; collector streets, 300 feet; and minor streets, 100 feet. A tangent at least 100 feet in length should be provided between reverse curves on arterial and collector streets. All changes in street grades that exceed one percent should be connected by vertical curves that meet the standards for stopping sight distance established in the American Association of State Highway and Transportation Officials, *A Policy on Geometric Design of Highways and Streets*. Minimum curve radii should be further based on the function of traffic speed, sight distances, and other factors.

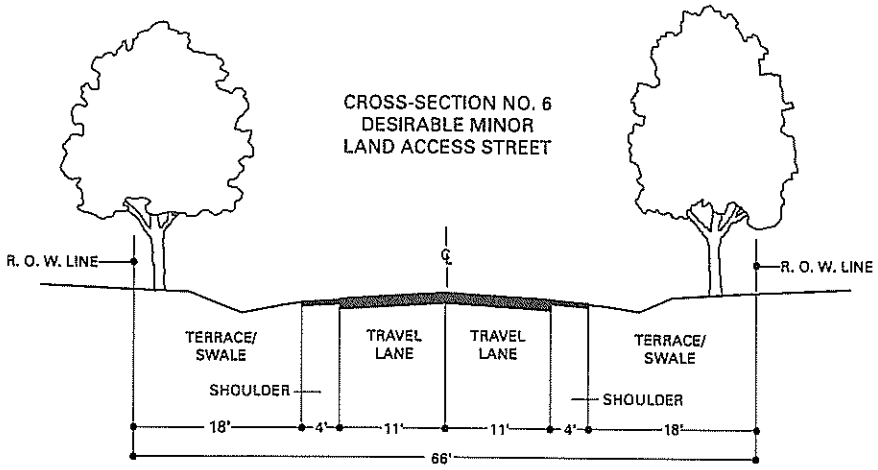
Figure C-1 (continued)

CROSS-SECTION NO. 5
DESIRABLE COLLECTOR STREET



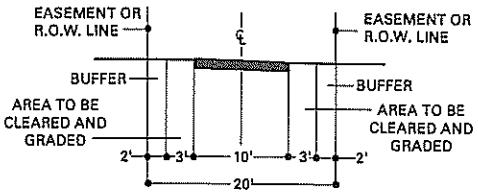
NOTE: AT THE DISCRETION OF THE VILLAGE BOARD OR PLAN COMMISSION, A MINIMUM 5-FOOT WIDE SIDEWALK MAY BE REQUIRED ON AT LEAST ONE SIDE OF THE STREET FOR SAFE PEDESTRIAN ACCESS TO ACTIVITY CENTERS. STREET TREES WOULD THEN BE LOCATED ON EITHER SIDE OF THE SIDEWALK SUBJECT TO SITE CONDITIONS SUCH AS SLOPES AND SWALES.

CROSS-SECTION NO. 6
DESIRABLE MINOR
LAND ACCESS STREET



NOTE: AT THE DISCRETION OF THE VILLAGE BOARD OR PLAN COMMISSION, A MINIMUM 5-FOOT WIDE SIDEWALK MAY BE REQUIRED ON AT LEAST ONE SIDE OF THE STREET FOR SAFE PEDESTRIAN ACCESS TO ACTIVITY CENTERS. STREET TREES WOULD THEN BE LOCATED ON EITHER SIDE OF THE SIDEWALK SUBJECT TO SITE CONDITIONS SUCH AS SLOPES AND SWALES.

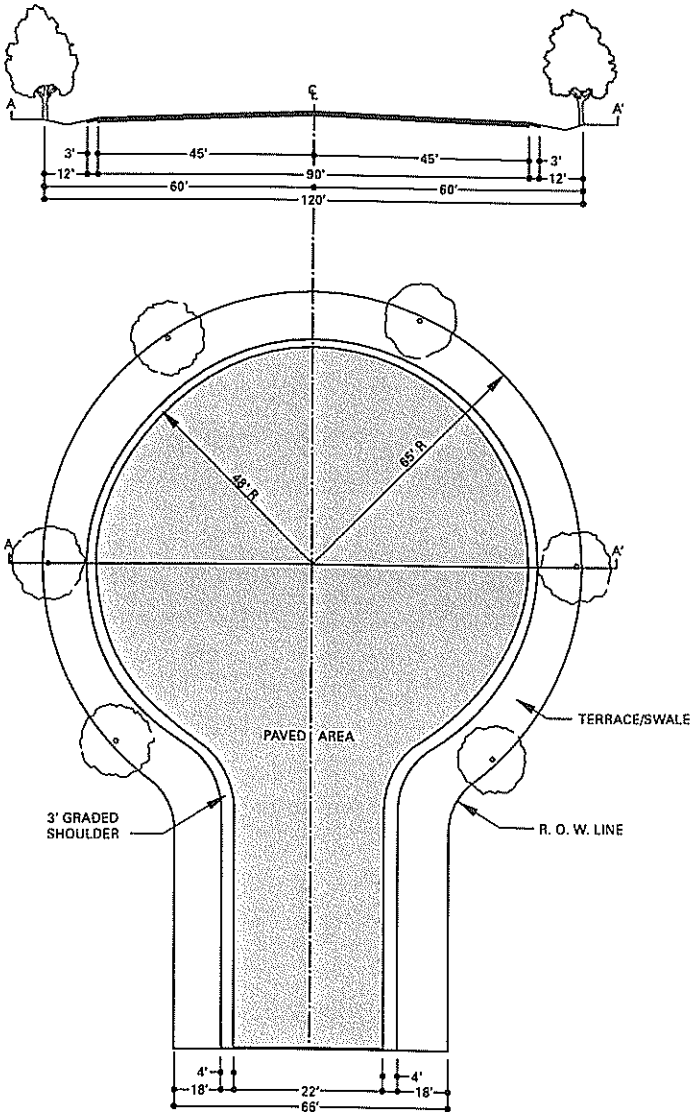
CROSS-SECTION NO. 7
TWO-WAY BICYCLE AND PEDESTRIAN PATH
WITHIN OR OUTSIDE STREET RIGHT-OF-WAY



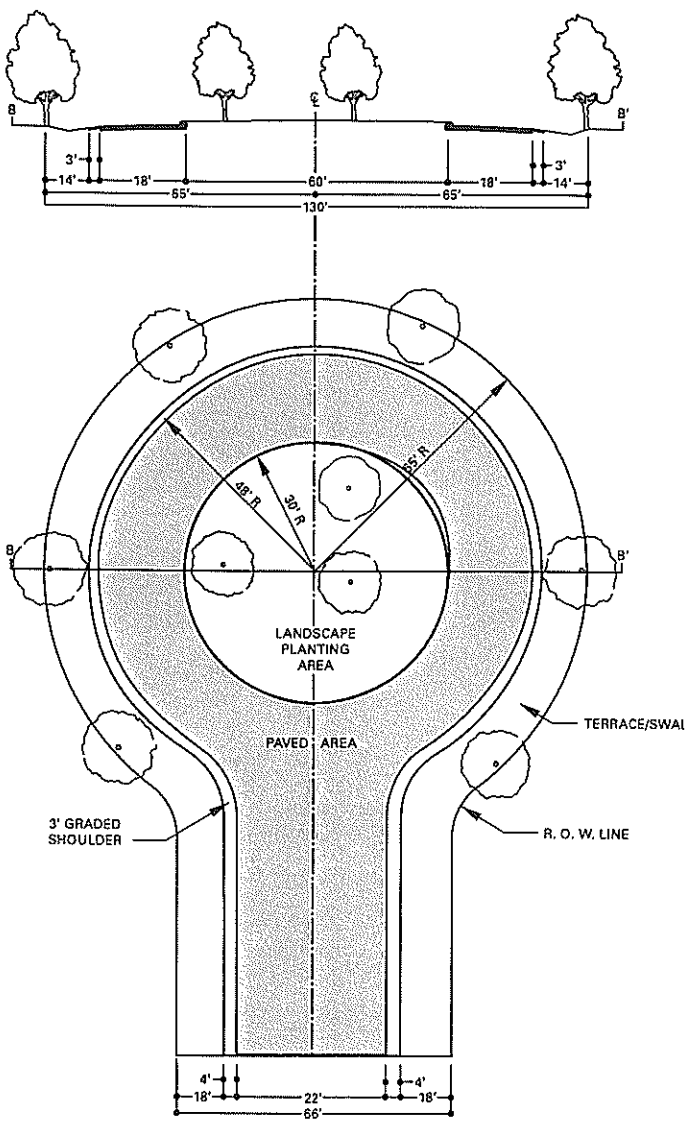
NOTE: AN 8-FOOT WIDE PATH MAY BE PROVIDED WHERE FEWER THAN 50 USERS ARE ANTICIPATED DURING THE PEAK-USE HOUR. CENTERLINES ARE NOT NORMALLY REQUIRED ON PATHS. WHERE CONDITIONS SUCH AS LIMITED SIGHT DISTANCE MAKE IT DESIRABLE TO SEPARATE TWO DIRECTIONS OF TRAVEL, A SOLID YELLOW LINE SHOULD BE USED TO INDICATE NO TRAVELING TO THE LEFT OF THE CENTERLINE.

Figure C-1 (continued)

CROSS-SECTION NO.8
"BULB" TYPE CUL-DE-SAC STREET



CROSS-SECTION NO. 9[2]
"BULB" TYPE CUL-DE-SAC STREET WITH CENTER ISLAND



Half-Streets

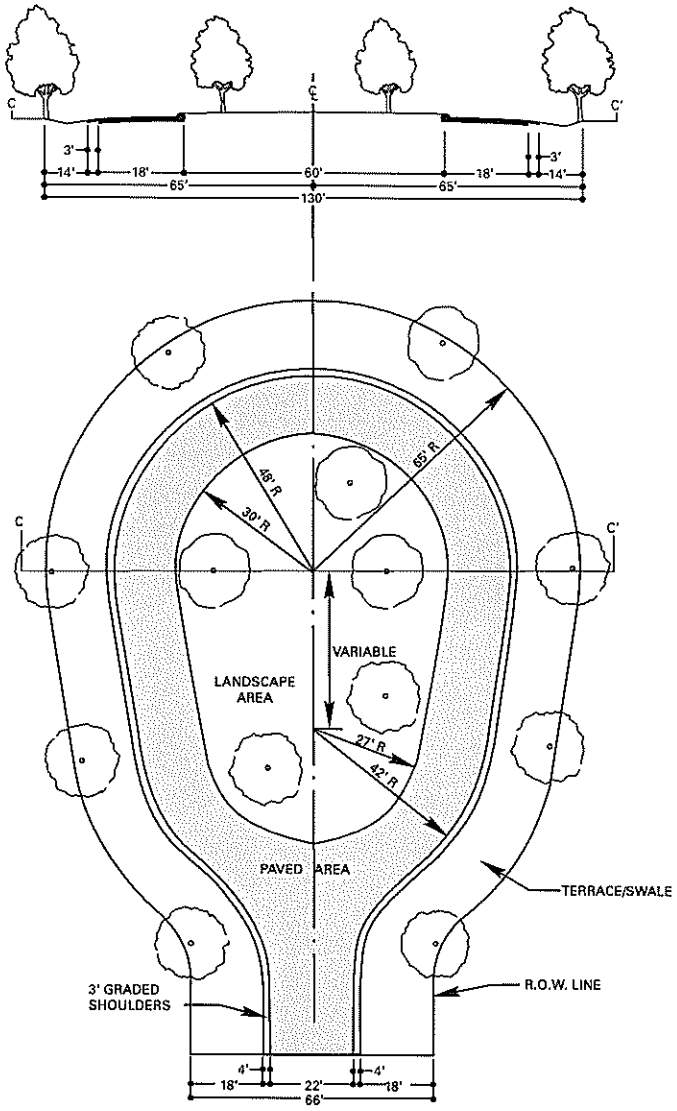
The platting of half-streets should be avoided. Half-streets put an unrealistic reliance on the chance that adjacent property owners will develop their adjacent properties at the same time. If half streets are allowed and then improved, their narrow width may result in street maintenance as well as traffic circulation problems.

Cul-de-Sac Streets

To minimize potential speeding and mid-street turn-arounds, the length of streets designed to have one end permanently closed with a turn-around should not exceed 750 feet. For any lengths beyond 750 feet, the developer should be required to show extraordinary circumstances forcing the use of such length. Cul-de-sac streets should terminate in a circular or tear-drop turn-around, as shown in Figure C-1, with preferably a center landscaped island with mountable curbing maintained by private means such as a homeowners association. Such privately maintained landscaped islands should also be provided in the center of "eyebrow" turn-arounds (half circular cul-de-sacs).

Figure C-1 (continued)

CROSS-SECTION NO. 10[2]
"TEAR DROP" TYPE CUL-DE-SAC STREET
WITH CENTER ISLAND



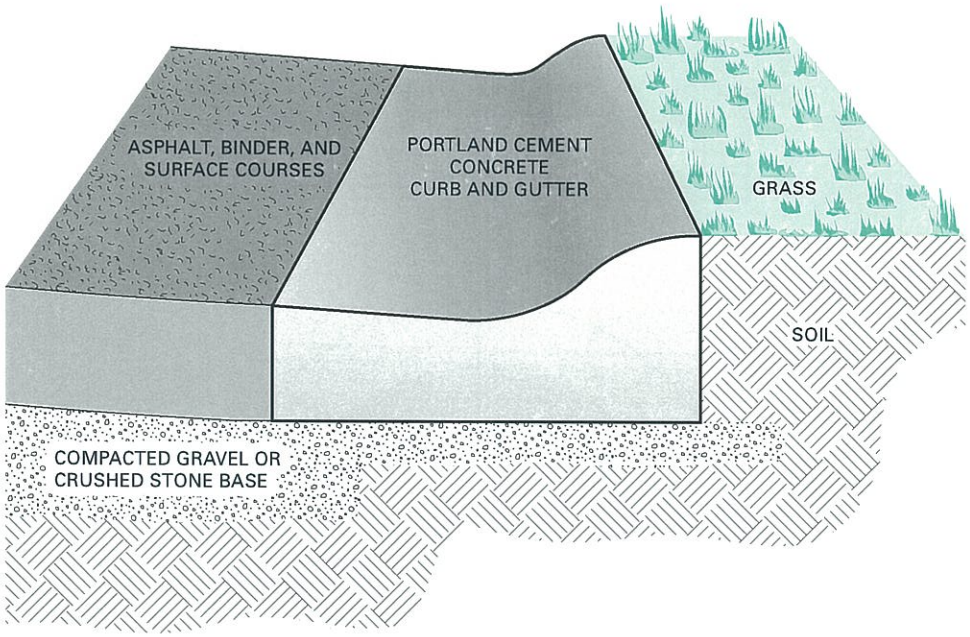
[1]THE VILLAGE OF WALES PREFERRED CROSS-SECTIONS SHOWN IN THIS FIGURE ARE, IN ALL CASES, TYPICAL, AND ARE SUBJECT TO VARIATIONS WITH REGARD TO A NUMBER OF CONSIDERATIONS, INCLUDING TOPOGRAPHY, TRAFFIC PATTERNS AND VOLUMES, TRAFFIC AND PARKING LANE WIDTHS, RIGHT-OF WAY WIDTHS, AND ADJACENT LAND USES. NECESSARY VARIATIONS SHOULD BE DETERMINED DURING PRELIMINARY ENGINEERING STUDIES FOR SPECIFIC STREET AND HIGHWAY PROJECTS. THESE CROSS-SECTIONS ARE SHOWN IN ORDER TO PROVIDE THE APPROPRIATE JURISDICTIONAL AGENCIES AND LOCAL OFFICIALS WITH AN INDICATION BOTH OF THE AMOUNT OF RIGHT-OF-WAY WIDTH THAT SHOULD BE CONSIDERED FOR RESERVATION TO ACCOMMODATE THE REQUIRED NUMBER OF TRAFFIC LANES, AND OF PAVEMENT WIDTHS THAT MAY BE USED AS A STARTING POINT FOR ENGINEERING STUDIES.

[2]THE VILLAGE DETERMINED THAT ANY LANDSCAPED ISLANDS PROPOSED IN THE TURN-AROUNDS SHOULD BE PROPERLY MAINTAINED BY PRIVATE MEANS SUCH AS A HOMEOWNERS OR CONDOMINIUM ASSOCIATION.

Source: SEWRPC.

Figure C-2

TYPICAL MOUNTABLE CURB CROSS-SECTION



Source: SEWRPC.

Curb Ramps

Curb ramps should be provided in accordance with the Americans with Disabilities Act and with Section 66.0909 of the *Wisconsin Statutes*.

Bicycle and Pedestrian Facilities

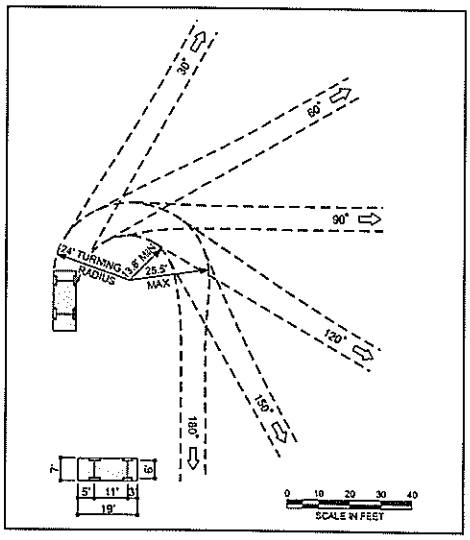
Bikeways[2] and pedestrian facilities should be afforded safe and convenient access to activity centers and places of employment. The provision of such facilities should be based, in part, on Figure C-1 and the planning and design standards established in SEWRPC Planning Report No. 43, *A Regional Bicycle and Pedestrian Facilities System Plan for Southeastern Wisconsin: 2010*, which includes specific design guidelines such as desirable grades, sight

[2] *A "bikeway" is a general term that includes any road, path, or way that may legally be used for bicycle travel. Types of bikeways include "bike paths," which are physically separated from motorized vehicles; "bike lanes," which are portions of roadways that are designated by striping, signing, and pavement markings for the exclusive or preferential use by bicycles; and "shared roadways," which are roadways that do not have a designated bike lane, but may be legally used for bicycle travel. A "bike route" is a bikeway designated with directional and information markers, and may consist of a combination of bike paths, bike lanes, and shared roadways.*

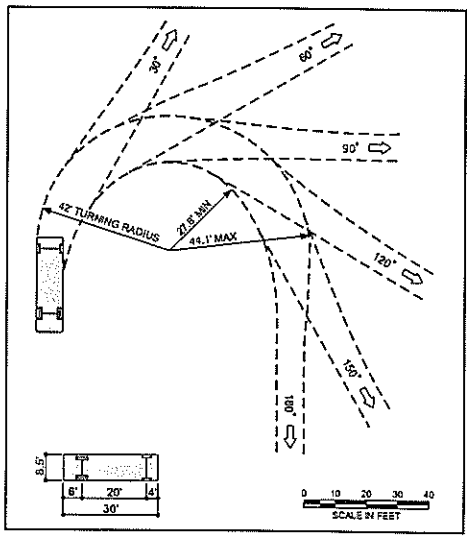
Figure C-3

TURNING RADII OF SELECTED MOTOR VEHICLES

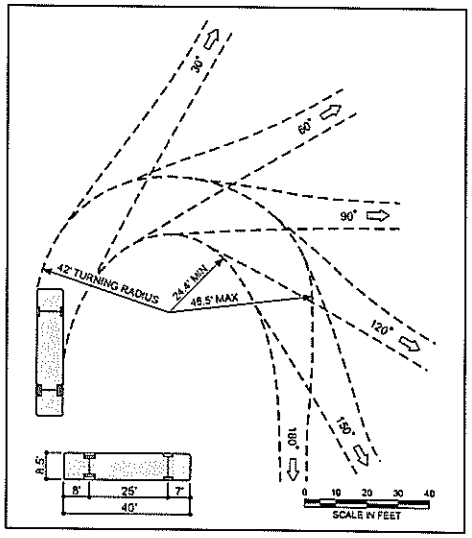
A. PASSENGER CAR



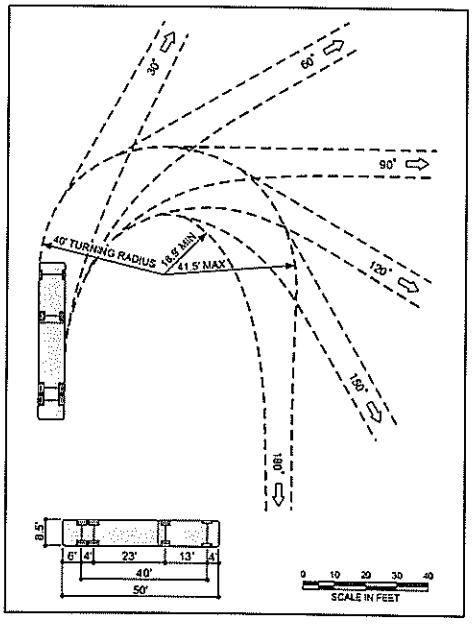
B. SINGLE-UNIT TRUCK



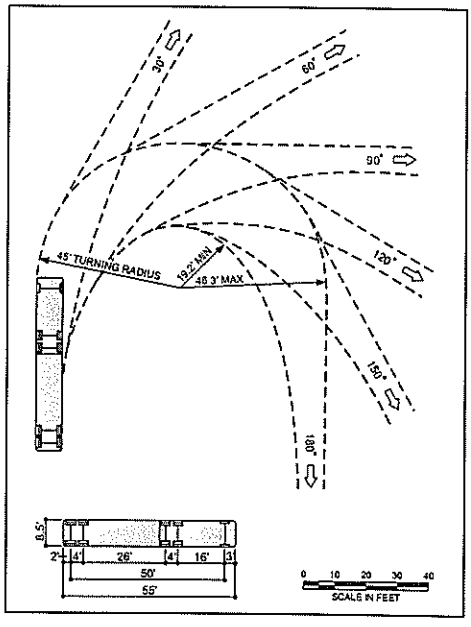
C. 40-FOOT-LONG BUS



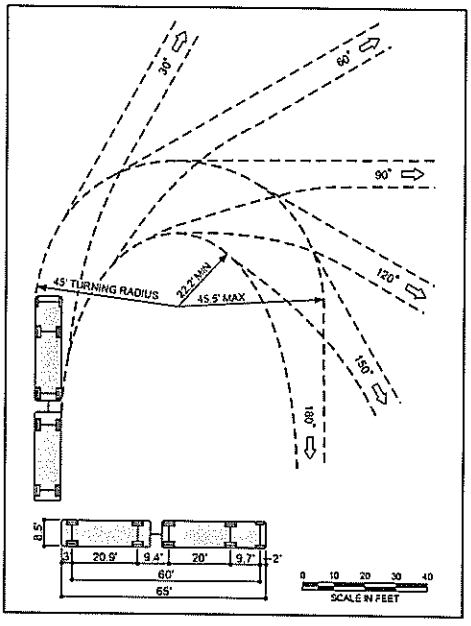
D. 50-FOOT-LONG INTERMEDIATE SIZE SEMITRAILER COMBINATION TRUCK



E. LONG LARGE-SIZE SEMITRAILER COMBINATION TRUCK



F. 65-FOOT-LONG SEMITRAILER-FULL TRAILER COMBINATION TRUCK



NOTE: THE TURNING TEMPLATES SHOW THE TURNING PATHS OF THE AASHTO DESIGN VEHICLES. THE PATHS SHOWN ARE FOR THE LEFT FRONT OVERHANG AND THE OUTSIDE REAR WHEEL. THE LEFT FRONT WHEEL FOLLOWS THE CIRCULAR CURVE, HOWEVER, ITS PATH IS NOT SHOWN.

Source: American Association of State Highway and Transportation Officials (AASHTO).

distances, pavement widths, crosswalks, and other standards. Off-street bike and pedestrian ways should be provided to connect cul-de-sac streets and adjacent streets across blocks of 900 feet or longer, and should be provided to connect adjacent subdivisions, subdivisions and activity centers, and activity centers and employment centers where alternative on-street routes are unduly circuitous. Examples of site designs that facilitate bicycle and pedestrian travel are illustrated in Figure C-4.

Whenever a street or highway that is designated as a bikeway on an adopted bicycle-way facility system plan is going to being constructed, reconstructed, or resurfaced, such streets should accommodate bicyclists in accordance with Figure C-1. On limited street rights-of-way with roadside swales and low traffic speed and volumes, a paved shoulder with a width of at least four feet, and preferably five or six feet, should be provided to accommodate bicyclists if a separate path is impractical.

Vehicular Access

Access and Street Intersections

Driveways on corner lots should be set back sufficiently from intersecting streets so that they do not interfere with traffic movement. The corner clearance between new direct public or private access and an arterial street intersection should be a minimum of 115 to 230 feet or, preferably, 250 feet where land parcel size permits, as illustrated in Figure C-5. The clearance distance is defined as the distance between the nearest face of curb or edge of pavement of the intersecting street and the nearest face of curb or edge of pavement of the nearest access point upstream or downstream of the intersection.

Arterial Highway Access Barriers

No-access easements for motorized vehicles and physical barriers, such as ditching, curbing, fencing, plantings, berms, or other landscape barriers, should be provided to prevent undesirable vehicular access to arterial streets or highways and to properly and safely channelize traffic movements. When plantings are used as an access barrier, the width of the landscaped area should be at least 10 feet. If berms are used as barriers, the width of the landscaped area should be able to accommodate the size of the berms, based on their slope, crown, height, and form. When structural barriers are used, the minimum width could be five feet, preferably wider, with landscaping such as trees and shrubs provided between the structure and adjacent right-of-way. Where applicable, openings should be provided in the barriers for convenient bicycle and pedestrian access to adjacent streets. The vision clearance triangle standards discussed herein should also be observed. Figure C-6 illustrates alternative landscaping methods for barriers with parking lot screening.

Reverse-Frontage Lots to Limit Arterial Highway Access

Reverse-frontage lots should be located adjacent to arterial streets or highways to limit vehicular access from abutting land uses. A landscaped buffer strip at least 30 feet wide, or preferably wider, should be provided with a nonaccess reservation along the rear property lines of residential reverse-frontage lots, as shown in Figure C-7. The landscaped buffer strip should be completed as part of a development to ensure proper installation and design continuity. Normal lot depths should be increased by the width of the buffer strip.

Looped Land-Access Streets and Shared Driveways/Traffic Aisles

Looped land-access streets and shared drives should be used, when feasible, to help reduce the potential number of driveway intersections along an arterial for commercial areas, as illustrated in Figure C-8. In cases where parking lots are located in the front yard, shared traffic aisles should be used between adjoining compatible uses, such as abutting commercial uses, that are aligned parallel with arterial streets to help reduce the number of access points and vehicles entering onto and exiting off the arterials.

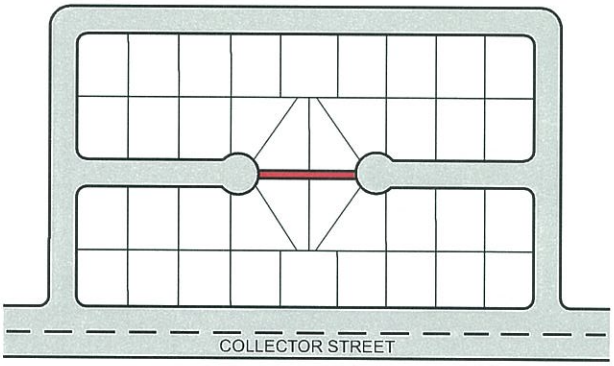
Alignments and Shared-Use of Driveways

Driveways should intersect each other and streets at as nearly right angles as topography and other limiting factors of good design permit. Driveway entrances along both sides of an arterial should be aligned as illustrated in Figure C-9 to help reduce the number of driveways needed and limit some of the confusion caused by unaligned

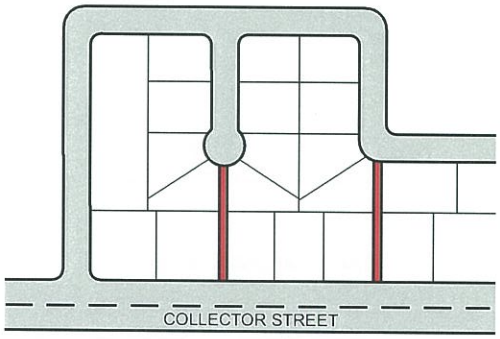
Figure C-4

EXAMPLES OF SITE DESIGNS WHICH FACILITATE BICYCLE AND PEDESTRIAN TRAVEL

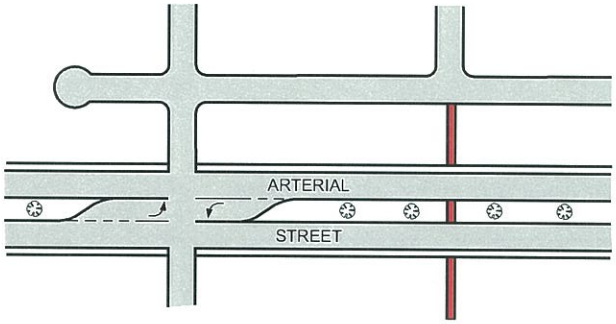
A. BICYCLE AND PEDESTRIAN CONNECTION BETWEEN CUL-DE-SAC STREETS



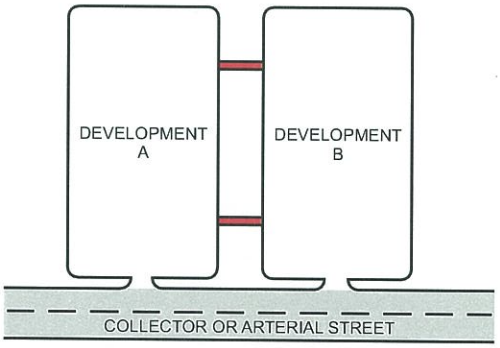
B. BICYCLE AND PEDESTRIAN CONNECTIONS ACROSS BLOCKS



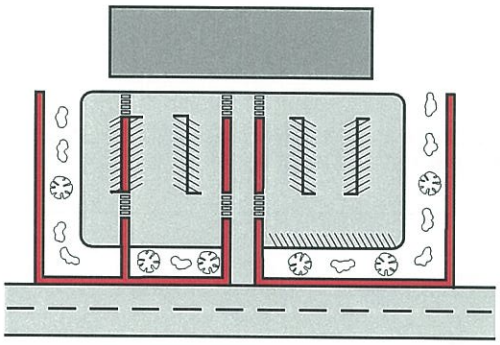
C. BICYCLE AND PEDESTRIAN CONNECTIONS ACROSS BLOCKS AND MEDIANS



D. BICYCLE AND PEDESTRIAN CONNECTIONS BETWEEN ADJACENT DEVELOPMENTS



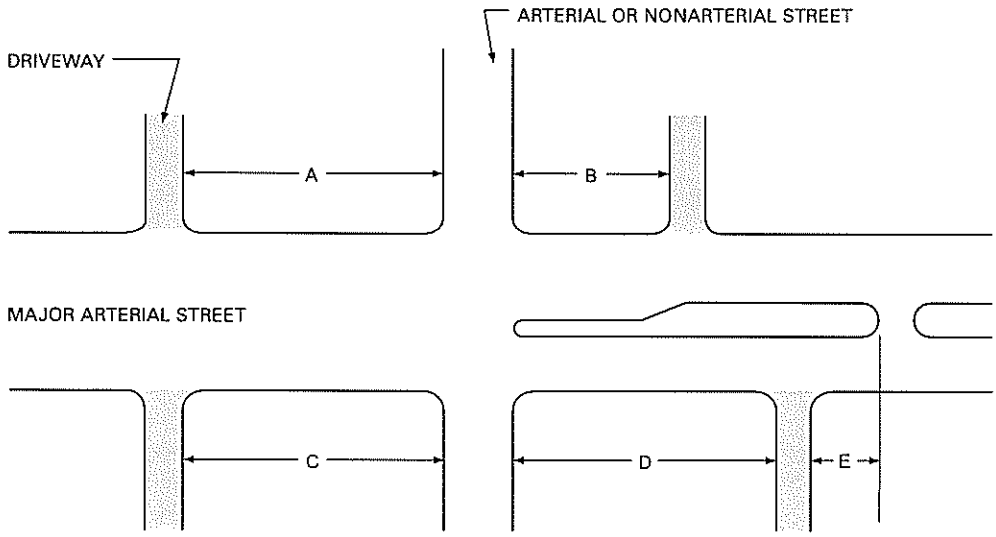
E. DESIGN OF PARKING LOT TO FACILITATE BICYCLE AND PEDESTRIAN ACCESS (WHERE PARKING CANNOT BE LOCATED TO REAR OF BUILDING)



Source: Oregon (State) Department of Transportation and SEWRPC.

Figure C-5

DESIRABLE MINIMUM CORNER CLEARANCES AT SIGNALIZED AND UNSIGNALIZED STREET INTERSECTIONS



INTERSECTION OF MAJOR ARTERIAL AND ARTERIAL/NONARTERIAL STREET CONTROLLED BY TRAFFIC SIGNAL

Key	Corner Clearance (feet)
A	230
B	115
C	230
D	230
E	150

INTERSECTION OF MAJOR ARTERIAL AND ARTERIAL/NONARTERIAL STREET CONTROLLED BY STOP SIGNS ON ARTERIAL/NONARTERIAL STREET

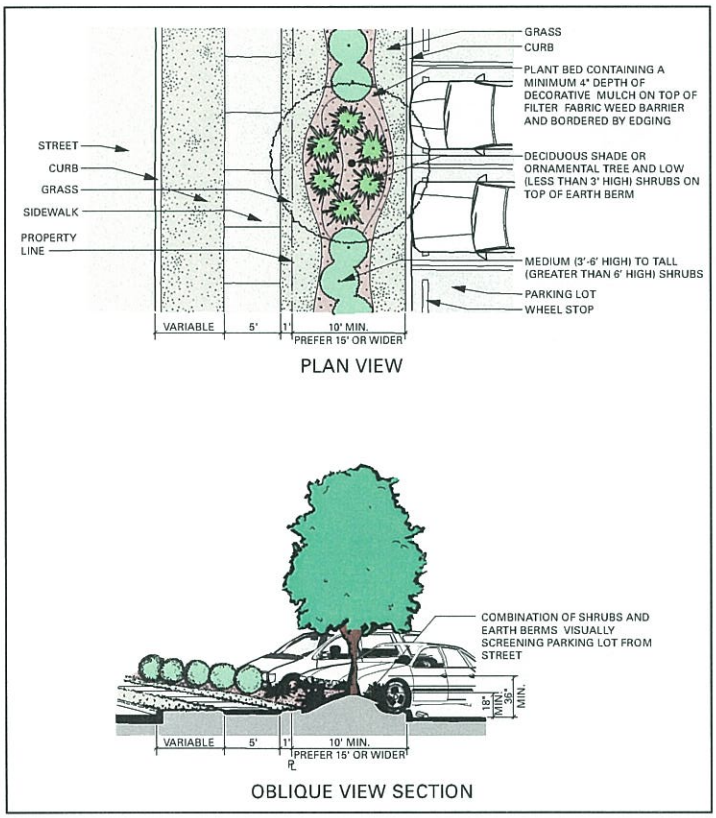
Key	Corner Clearance (feet)
A	115
B	85
C	115
D	115
E	150

Source: Institute of Transportation Engineers and SEWRPC.

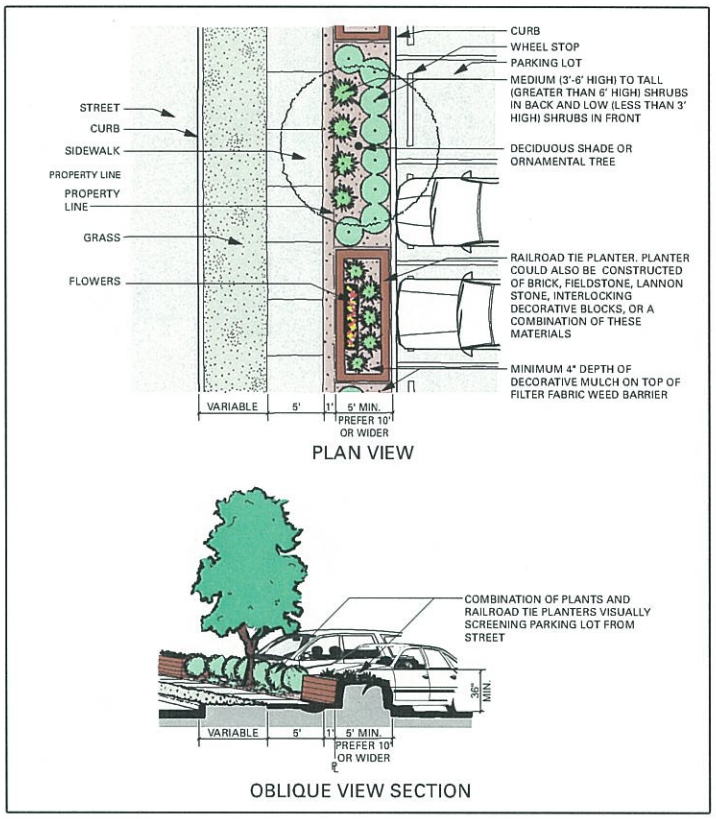
Figure C-6

ALTERNATIVE LANDSCAPING FOR HIGHWAY ACCESS BARRIERS AND PARKING LOT SCREENING

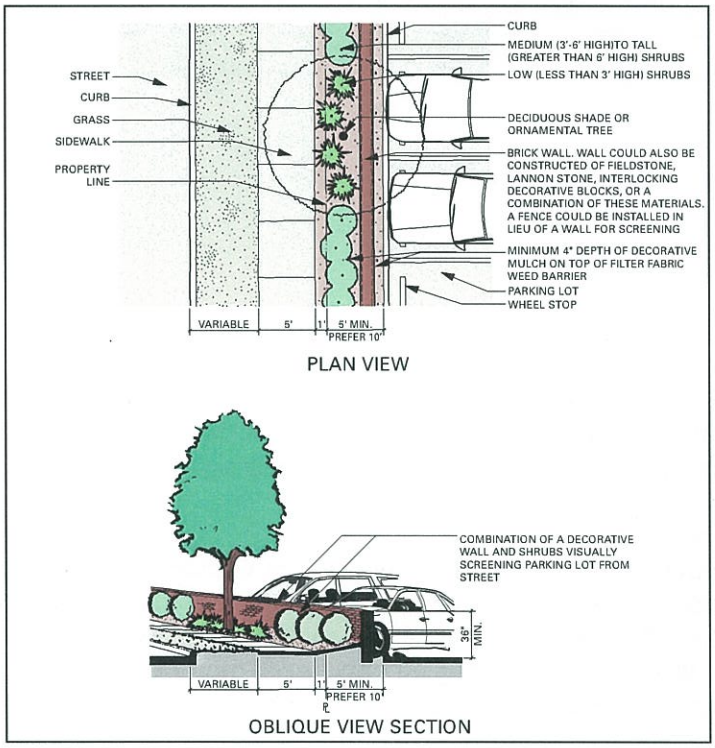
A. SCREENING WITH BERMS AND PLANTS



B. SCREENING WITH PLANTS AND PLANTERS



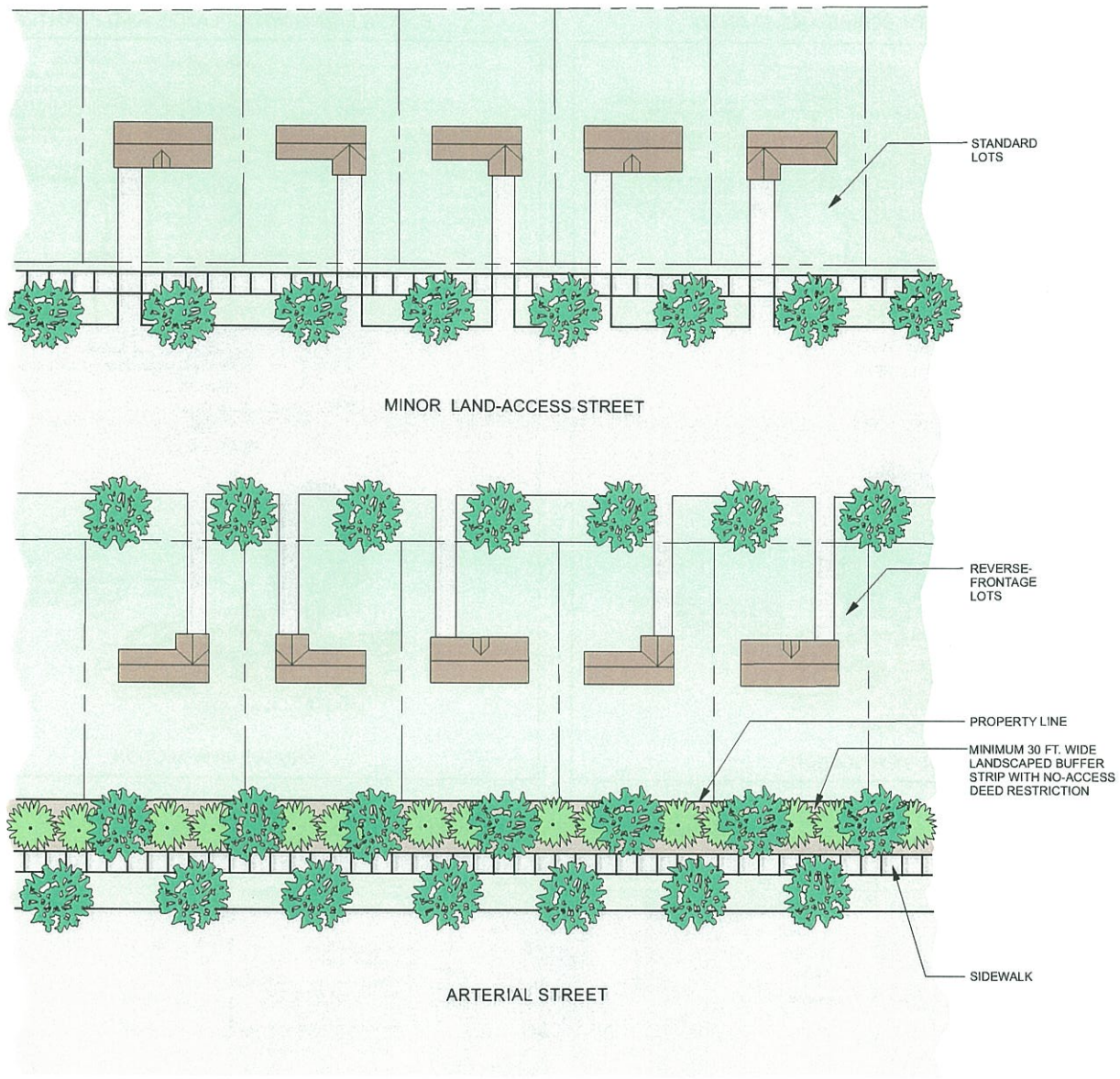
C. SCREENING WITH WALL AND PLANTS



Source: SEWRPC.

Figure C-7

REVERSE-FRONTAGE LOTS TO LIMIT VEHICULAR ACCESS TO ARTERIAL STREETS



Source: SEWRPC.

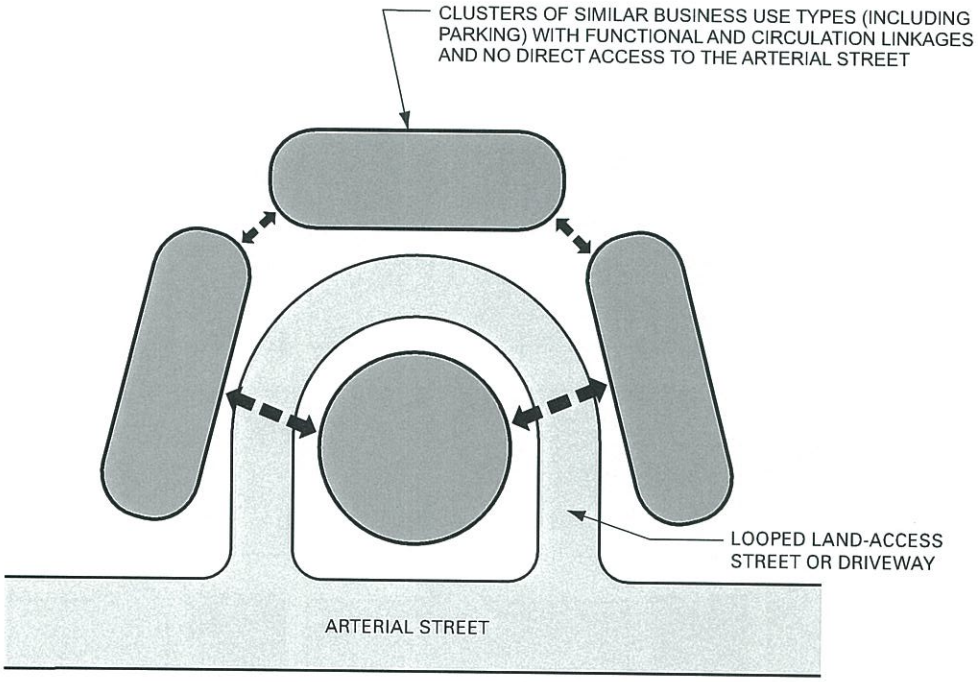
driveways. Also, the use of shared driveways, except for single-family residential uses, and parking lots between compatible land uses should be promoted, as shown in Figure C-9. In such cases, the driveway centerline may be the property line between two parcels of land or may be a mutually agreed-upon access easement.

Driveway Design for Entering Vehicles

Driveway design along arterial streets should allow an entering vehicle a turning speed of 15 miles per hour to help reduce interference with through arterial street traffic. Driveway design and placement should be coordinated with internal site circulation and off-street parking design so that the driveway entrance to the site can absorb the maximum expected rate of inbound traffic during a normal peak-traffic period. Driveway widths should also be based on the minimum turning radii required for the types of vehicles entering and exiting the site, as illustrated in

Figure C-8

DESIRABLE LOOPING OF DRIVEWAYS AND LAND-ACCESS STREETS IN COMMERCIAL AREAS



Source: SEWRPC.

Figure C-3. In general, driveways should be at least 12 feet wide for one- and two-family dwellings, and 24 feet wide at the right-of-way line for all other uses. In addition, driveway widths should not exceed 20 feet at the right-of-way line and 26 feet at the roadway for residential land uses, and should not exceed 25 feet at the right-of-way line and 32 feet at the roadway for all other land uses. Local officials may determine that a wider opening may be necessary, after a recommendation by the Village Engineer, to prevent a traffic hazard.

Driveway Spacing

Driveway spacing should be determined as a function of street operating speeds. The minimum spacing between access driveways along an arterial street or highway should be determined according to Table C-1. These spacings are based on average vehicle acceleration and deceleration rates and are considered necessary to maintain safe traffic operation.

Maximum Number of Driveways per Parcel

Generally, where abutting street frontage is less than 400 feet along arterial streets and highways, a maximum of one driveway opening may be permitted to a particular site, except reverse-frontage lots, from each of any one or two abutting arterial streets and highways. One additional driveway entrance along a single continuous parcel of land with frontage in excess of 400 feet may be permitted. When a shared driveway is used, it should be considered as a single direct-access driveway.

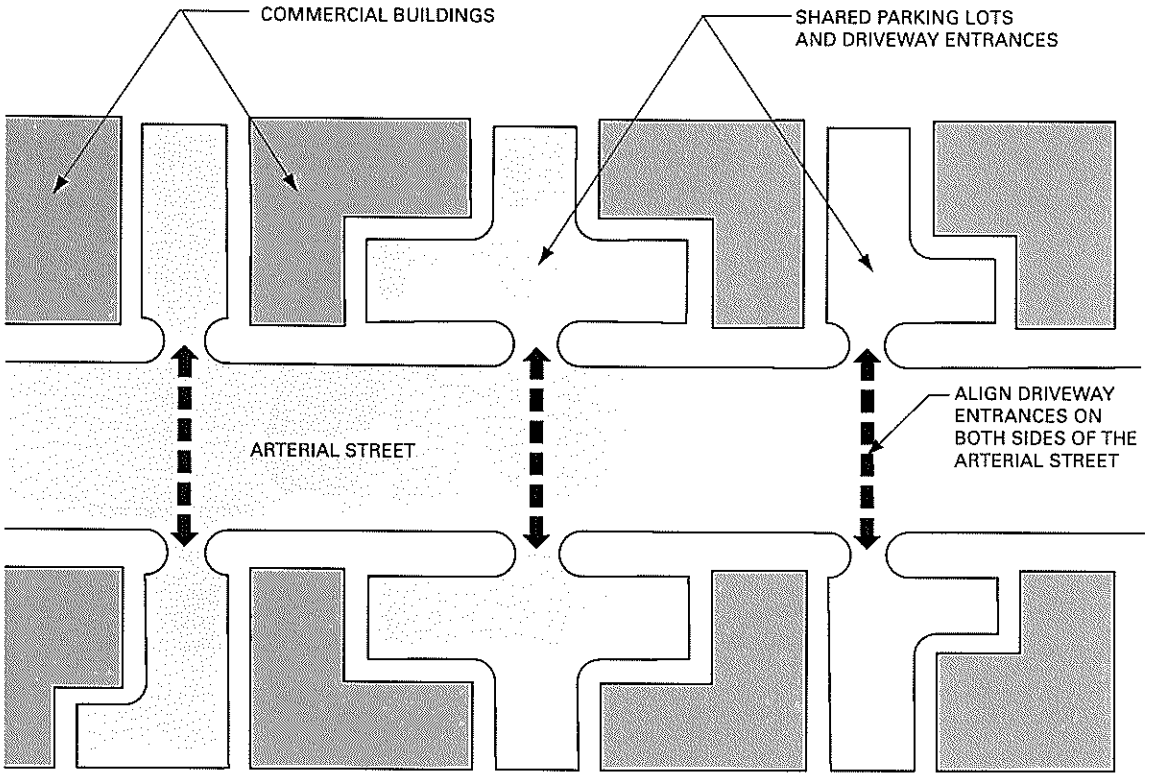
Traffic Visibility

Sight Distance and Driveway Placement

Direct-access driveway placement on abutting arterial streets and highways should be such that an exiting vehicle will have the minimum unobstructed sight distance listed in Table C-2 for the operating design speed of the abutting arterial street or highway.

Figure C-9

DESIRABLE ALIGNMENT AND SHARED USE OF DRIVEWAYS AND PARKING LOTS IN COMMERCIAL AREAS



Source: SEWRPC.

Table C-1

HIGHWAY OPERATING SPEED AND MINIMUM SPACING BETWEEN DIRECT-ACCESS DRIVEWAYS

Highway Speed Limit (mph)	Minimum Spacing (feet)
25	105
30	125
35	150
40	185
45	230
50	275

Source: American Planning Association and the Wisconsin Department of Transportation.

Table C-2

HIGHWAY DESIGN SPEED AND MINIMUM REQUIRED SIGHT DISTANCE FOR DIRECT-ACCESS DRIVEWAY PLACEMENT

Highway Design Speed Limit (mph)	Minimum Sight Distance (feet)	Desirable Sight Distance (feet)
30	200	200
35	225	250
40	275	325
45	325	400
50	400	475

Source: American Association of State Highway and Transportation Officials and the Wisconsin Department of Transportation.

Vision Triangles
A vision clearance triangle should be provided in which obstructions, such as structures, vegetation, and parked automobiles, are minimized between the heights of 2.5 and 10 feet above the mean curb grade or, if no curb exists, the centerline street grade adjacent to the triangular space formed by intersecting nonarterial street (collector and minor land-access streets) right-of-way lines and a line joining points on such lines at a point 30 feet from their intersection, as shown in Figure C-10. In the case of any streets intersecting arterial streets and railways, the corner cutoff distances establishing the vision clearance triangle should be increased to 60 feet, as illustrated in Figure C-10. Vision clearance triangles at intersections with State or county trunk highways should meet the vision corner requirements of the State or Waukesha County highway agency that has jurisdiction, but in no case should they be less than those specified in Figure C-10.

Single-trunk trees and pole signs may be permitted within the vision triangle provided they are located as far away from the intersection as possible and that the bottom of the tree canopy or the sign face is at least 10 feet above the adjacent mean curb grade. Trees, when planted, should be pruned of branches lower than about five feet above grade; thereafter, all trees should be pruned of branches below 10 feet, when feasible, in relation to tree size as it grows. Open fences with less than 25 percent opaqueness and necessary utility poles and traffic, directional, and street name signs may also be allowed; however, any proposed objects within the clearance triangle should be approved by the government agency having jurisdiction.

Blocks
General
The widths, lengths, and shapes of blocks should be suited to the planned use of the land; subdivision ordinance requirements; the need for convenient access, control, and safety of street traffic; and the preservation of and minimal adverse impact upon natural resource features, including the limitations and opportunities provided by topography.

Length
Blocks in residential areas should not be less than 600 feet nor generally more than 1,500 feet in length unless otherwise dictated by the preservation of natural resource features, including exceptional topography or other limiting factors of good design.

Mid-Block Bicycle and Pedestrian Ways
Bicycle and/or pedestrian ways should be provided near the center and entirely across any block exceeding 900 feet in length to provide adequate pedestrian and bicycle circulation and access to schools, parks, shopping centers, churches, or transportation facilities. Bicycle and pedestrian ways should consist of easements or dedicated rights-of-way at least 20 feet in width. Pavement widths of at least five feet, or wider depending on the type and volume of users, should be provided, as indicated in Figure C-1.

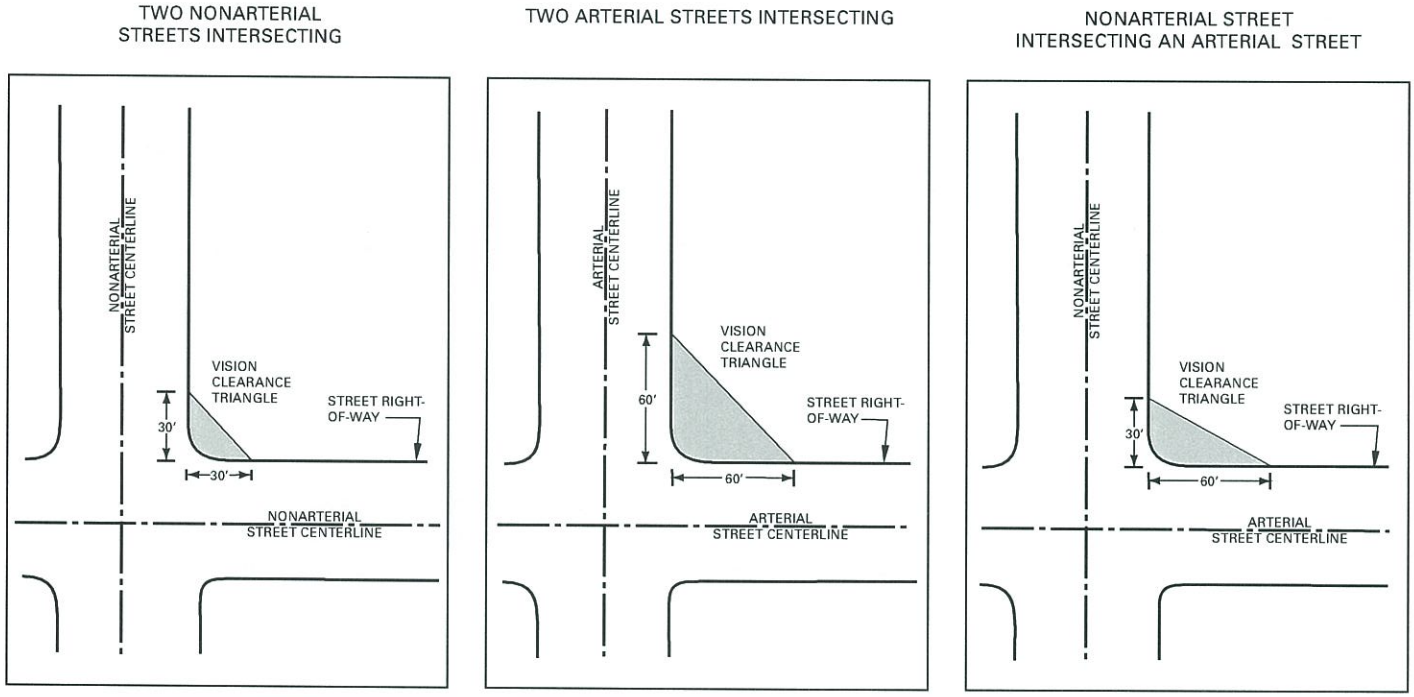
Width
Blocks should be wide enough to provide for two tiers of lots of appropriate depth except where a single tier of lots may be necessary to separate developments from through traffic, such as with reverse frontage lots, or to protect and preserve natural resources.

Lots
General
The size, shape, and orientation of lots should be appropriate for the location of a proposed subdivision, for the preservation of natural resources, and for the type of development and use contemplated. The lots should be designed to provide an aesthetically pleasing building site and a proper architectural setting for the building contemplated.

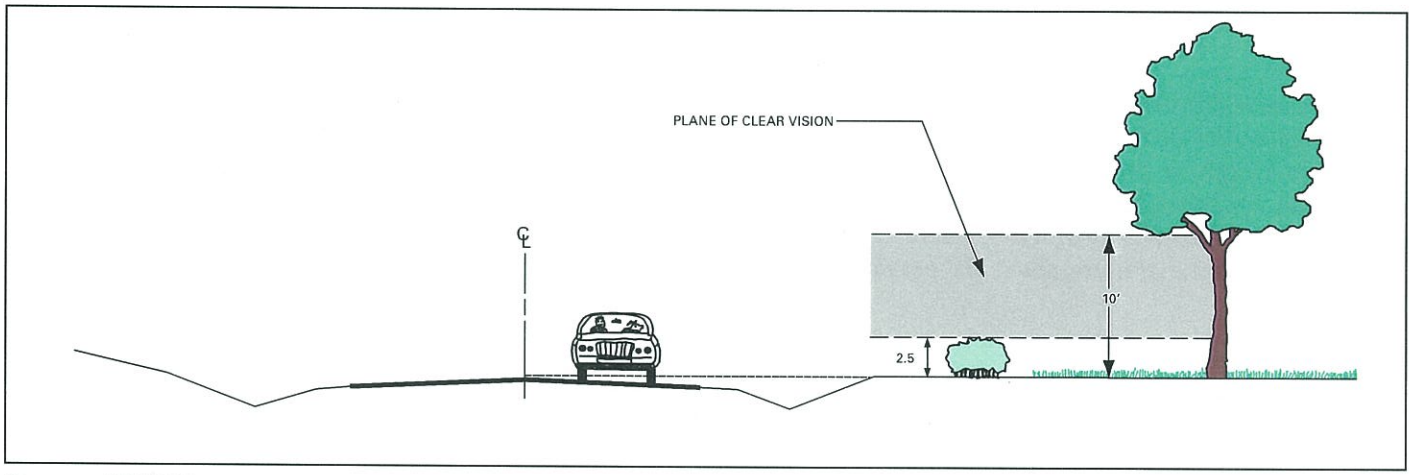
Figure C-10

VISION CLEARANCE TRIANGLES

PLAN VIEWS



CROSS-SECTION VIEW



Source: SEWRPC.

Side Lot Lines

Unless justified by the configuration and preservation of natural resource features, side lot lines should be at right angles to straight street lines or radial to curved street lines on which the lots face. Lot lines should follow municipal boundary lines rather than cross them.

Double-Frontage Lots
Double-frontage, or "through lots," should be prohibited, except where necessary to provide separation of development from arterial traffic, as shown in Figure C-7, or to overcome specific disadvantages of topography and orientation.

Access
In general, every lot should front or abut a public street.

Lot Size
Lot sizes should contain sufficient area to adequately accommodate buildings, parking, landscaping, screening, and all required yards. Area and dimensions of all lots should conform to the requirements of the Village zoning ordinance.

Lot Depth and Proportion
It is recommended that the depth of new lots generally should not be less than 125 feet. Normal lot depths should be increased relative to the width of any buffer strips provided along abutting arterial streets, highways, and railways. In certain cases, the depth should be increased to accommodate shared land-access roads or traffic aisles between adjoining compatible uses and aligned parallel with arterial streets to help reduce the number of access points along arterials. Excessive depth of lots in relation to width should be avoided whenever possible unless justified for the preservation of natural resources; a proportion of two-and-one-half to one (2.5:1) is suggested as a maximum depth-to-width ratio. Flag lots should be avoided whenever possible, except where necessary to preserve natural resources or overcome specific disadvantages of topography and/or orientation.

Lot Width
Lots within the interior of a block should have a width at the building setback line that conforms to the Village zoning ordinance. In general, required minimum lot widths should be increased if a utility easement, bicycle way, pedestrian way, or a landscaped buffer strip is provided.

Corner Lots
Corner lots should have an additional width of at least 20 feet to permit adequate building setbacks from side streets.

Commercial Spatial Considerations
Commercial Business Clustering
Businesses with similar characteristics should form commercial clusters versus strips within proximity of one another in order to better define identifiable commercial areas for the user, provide functional linkages of similar business types, and provide circulation linkages for vehicular, bicycle, and pedestrian traffic. Businesses may be located so as to form the following three general types of clusters:

1. *Shopping center retail sales and services* characterized by onsite parking for customer automobiles and a pedestrian-oriented shopping environment. Uses in this category would include general merchandise stores, food stores, apparel and accessory stores, drug stores, department stores, gift shops, cleaners, barbers and hairdressers, banks and savings and loan institutions, and restaurants (other than drive-in or drive-through).

2. *Automobile-oriented retail sales and services* characterized by sales and services to commercial customers in the automobile. These types of commercial uses are not pedestrian oriented. Uses in this category include gasoline stations, automobile sales and service, car washes, drive-in banking, drive-in/drive-through restaurants, hotels, motels, and "big-box" retail stores.

3. *Offices*, including professional offices, medical offices, dental offices, clinics, and printing and photo reproduction services.

Traffic Circulation between Adjacent Properties
Provision for traffic circulation between adjacent commercial uses should be provided through coordinated access drives, shared parking lots, and interconnecting bicycle and pedestrian ways as shown in Figures C-4, C-8, and C-9.

Onsite Vehicular Circulation
The vehicular circulation system within and around individual commercial parcels should be developed so as to provide easy access to parking facilities from the larger community without lessening the safety or capacity of arterials. Conflicts between vehicles and pedestrians should be avoided where possible and, where conflicts cannot be totally avoided, conflicts should be minimized. Also, delivery and service circulation patterns on the site should not conflict with customer circulation.

Onsite Queued Vehicle Storage
Sufficient onsite space should be provided to accommodate at least three queued vehicles waiting to park or exit the parking lot without utilizing any portion of the arterial street right-of-way or interfering with arterial street traffic and safety. For drive-through services, queuing area to accommodate at least seven vehicles should be provided onsite.

Onsite Service and Loading Areas
Service and loading areas should be located for convenient service vehicle access. Service and loading areas should not conflict with pedestrian or general vehicular traffic in the area. Also, service and loading areas should be screened or located in the rear of buildings to shield them from view by the public and customers.

Parking Lots
Number of Parking Spaces
Parking spaces should be provided in sufficient number to meet the applicable zoning requirements. Reserved parking stalls should be provided for the physically disabled pursuant to the Americans with Disabilities Act and Section 346.503 of the Wisconsin Statutes. When warranted, modification to the minimum number of parking spaces required should be allowed to avoid constructing unneeded and excessive impervious surfaces in areas that could otherwise be preserved or converted to landscaped open space.

Parking Lot Location
Parking lots should be so sited as to minimize walking distances to the facility the parking lot is serving. Parking spaces for the disabled should be located as close as possible to a building entrance which allows such persons to enter and leave the parking area without assistance and, if possible, without crossing traffic lanes or passing behind other parked vehicles.

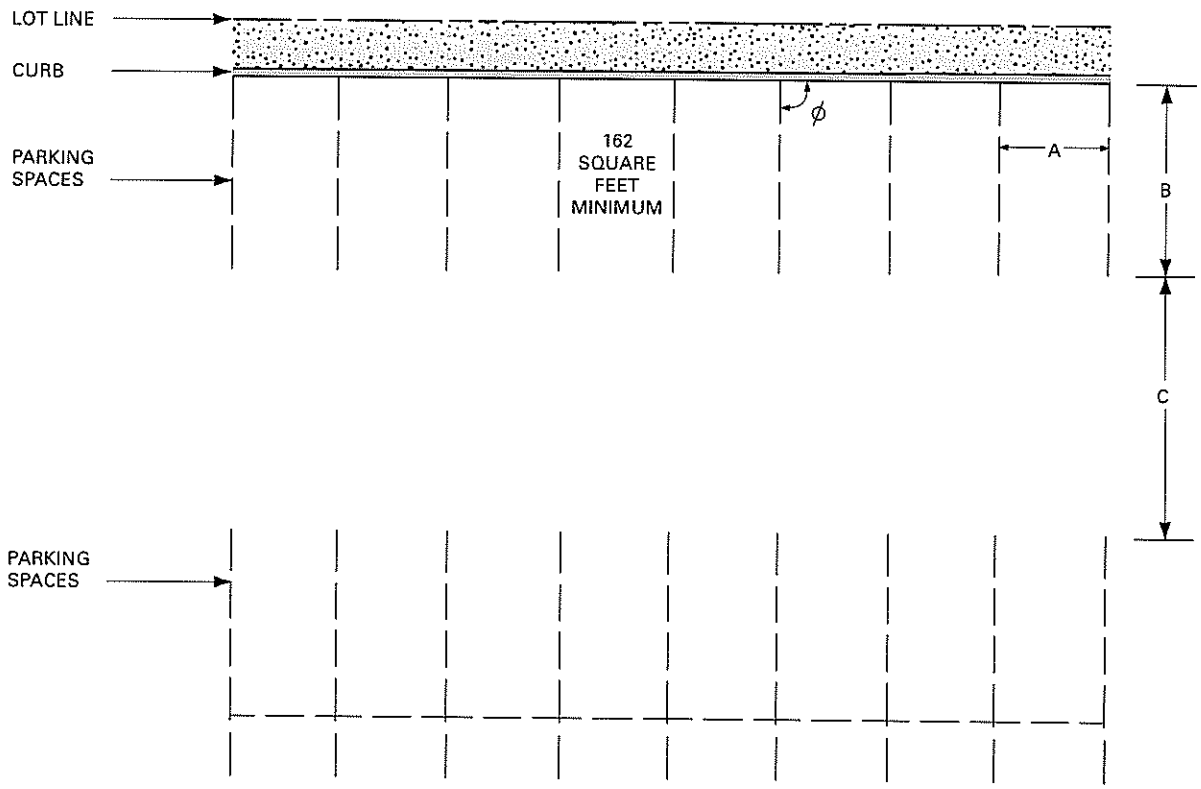
Parking Lot Dimensions
Minimum design dimensions for parking lots are shown in Figure C-11. Dimensions for handicapped parking spaces should comply with those established in the Americans with Disabilities Act.

Parking Lot Drive Width
Parking lot drives should have a minimum width as specified in Figure C-11 based on the parking space angle and whether the drive or traffic aisle will accommodate one- or two-way traffic.

Surfacing
All traffic aisles and off-street parking areas should be graded and hard-surfaced with concrete or asphalt so as to be dust-free and properly drained. Parking areas for five or more vehicles should have the aisles and parking spaces clearly marked in order to distinguish between parking stalls and vehicular circulation areas.

Figure C-11

MINIMUM DESIGN DIMENSIONS FOR PARKING LOTS AT VARIOUS ANGLES



Design Dimensions (feet)	Key	Degrees (ø)				
		0	30	45	60	90
Stall Width	A	8	9	9	9	9
Stall Length	B	22	18	18	18	18
Aisle Width	C	12	12	12	16	26[a]

[a] *Two-way aisle.*

Source: SEWRPC.

Parking Visibility from Arterial Streets

Parking lots should be partially visible from an adjoining arterial street or highway, have clearly marked entrances and exits, and be visually distinguishable from public rights-of-way. Parking lots with spaces perpendicular to arterial street rights-of-way and with direct access to the right-of-way without a service drive should be prohibited.

Curbs and Barriers Near Structures and Lot Lines

Curbs or barriers should be installed a minimum of five feet, and preferably 10 feet, from structures and property lines to prevent parked vehicles from damaging structures or from extending over lot lines. No vehicle should be

parked closer than 10 feet to the base setback line. In addition, adequate space should be provided for landscaping and visual screening which would help prevent vehicles in off-street parking areas from backing directly onto public paths, sidewalks, or streets.

Parking Lot Lighting

Parking lot lighting should serve four purposes. First, the lighting should provide for the safe movement of pedestrian and vehicular traffic. Second, it should aid in the provision of an environment which promotes security and crime prevention. Third, the lighting should aid in creating an aesthetically pleasing environment at nighttime, as well as during the daylight hours. Fourth, the lighting for commercial parking lots should assist in promoting the use of commercial facilities both day and night.

Parking lots should be lit to meet current standards issued by the Illuminating Engineering Society of North America (IESNA),[3] which ranges from 0.2 to 2.0 footcandles based on the type of use the parking lot is serving as well as the extent of desired security. All outside lighting should be arranged and shielded to prevent glare, reflection, nuisance, inconvenience, or hazardous interference of any kind on, to, or with adjoining streets or residential properties. The intensity of illumination should not exceed 0.5 footcandles at property lines. In general, the height of the light fixture lens from the ground level should not exceed 20 feet, and the pole should be placed at least four feet from tire-stops or paved areas, or protected by other approved means. All wiring should be placed underground.

Landscaping

General

A landscape design for a site should be integrated with the overall site plan and consistent with the desired community character, and not be considered merely as an afterthought. Landscaping enhances the overall attractiveness of a community and contributes to the general welfare of the public by providing shade, shelter, and screening. Plants selected for use in the urban environment, such as in parking lots and along streets, should be salt-tolerant. Decorative mulch, such as stone or shredded hardwood bark, with underlying filter fabric weed barrier should be used in lieu of turf grass where heavy pedestrian and vehicular traffic is present or where the availability of water is limited. If such grass is proposed in landscaped areas, it should be properly maintained and protected from pedestrian and vehicular traffic, otherwise an "all-weather" surface material should be used, such as decorative pavement surface or stone mulch with underlying weed barrier. Excessive pavement of open space areas with hard-surface materials such as asphalt or concrete should be discouraged. Flower beds should only be provided if provisions are made for proper maintenance. Berms are beneficial for plants, especially if more suitable planting soil is placed above areas containing poor soil and drainage. Invasive plants identified in Appendix D should not be used in landscaping. The finished side of fences should face the street or neighboring property with the supporting structural components of the fence facing away from adjacent streets or properties. In addition, any proposed landscaping should recognize traffic safety requirements including those for sight distances, vision triangles, and vehicular recovery areas.

Natural native plants, including prairie grass and wildflowers, should be used in areas of steep topography, along rural roadways, and in designated "natural" areas of parks and greenways to preserve or achieve a natural appearance while reducing maintenance cost. To preserve water supply, natural landscaping and xericscaping—a landscape arrangement with plants that require minimal water—should be encouraged.

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[3] *Lighting standards should be based on the most recent edition of IESNA Document RP-20,* Lighting for Parking Facilities. *The recommended illumination values provided are meaningful only when used in conjunction with other elements. The most critical elements are luminaire mounting height, spacing, transverse location of luminaries, luminaire selection, traffic conflict areas, border areas, transition lighting, alleys, and roadway lighting layouts.*

Existing Vegetation
Every effort should be made to protect and retain existing native trees, shrubbery, vines, and grasses not actually lying in public streets, drainageways, paths, and trails. Removal of existing vegetation should be minimized and, when permitted, cutting and clearing should be conducted so as to prevent erosion and sedimentation and to preserve and improve scenic qualities. Existing invasive plants identified in Appendix D, however, should be properly removed. Trails constructed in environmentally sensitive areas should be designed so as to result in the least removal and disruption of vegetation with minimal impairment to the natural beauty of the area. Trees should be protected and preserved during construction as illustrated in Figure C-12 and in accordance with sound tree conservation practices, including the use of wells, islands, or retaining walls whenever abutting grades are altered. Special consideration should be given to preventing soil compaction and stockpiling of soil or construction materials in existing tree root zones, even if such placement is temporary.

Wind and Landscape Planting
Landscaping should be provided to minimize winter wind and to promote summer wind effects on structures. Winter wind protection is afforded by providing landscaping of an adequate height on the west side of buildings. An optimum distance between a windbreak and a building is approximately twice the height of the windbreak. A wind-break consisting of two rows of coniferous trees is nearly optimal for efficiency, and additional rows would not significantly increase its effectiveness as a windbreak. Figure C-13 illustrates the concept.

Noise and Landscaping
Groups of trees, shrubs, and other landscape masses, such as earth berms or ornate solid fences and walls, can serve as noise barriers and should be utilized where noise could create problems for neighboring land uses. Such landscaped noise barriers are most effective when the barrier is near the noise source or receiver.

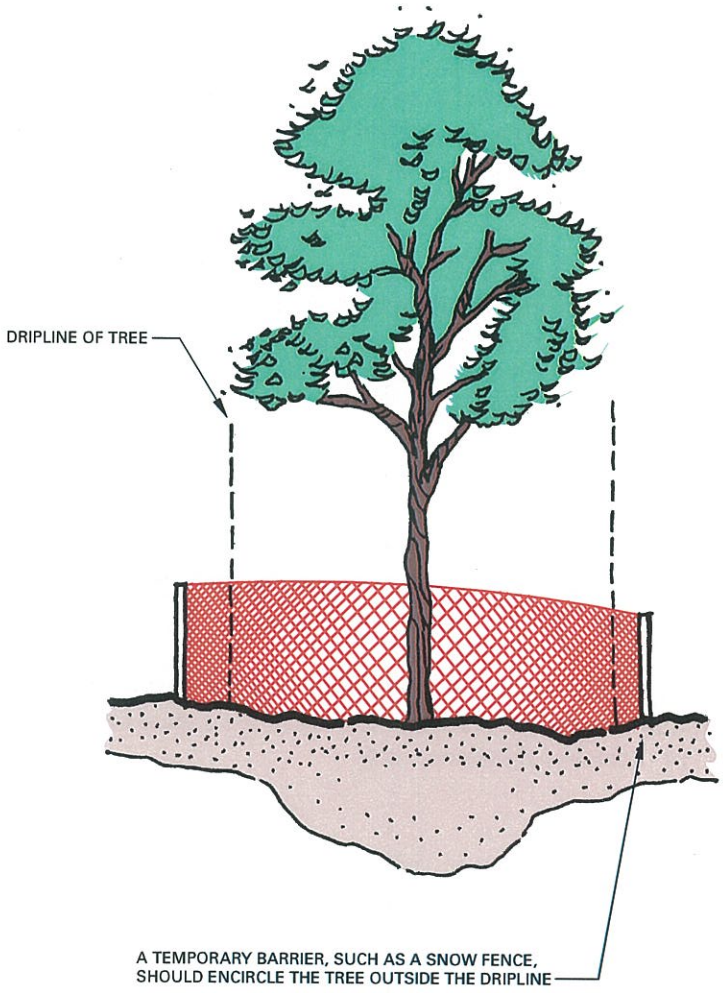
Solar Access and Landscape Planting
With respect to solar access, plants installed to the south of structures should be deciduous species with a broad branching habit and open twig patterns that would provide shading in the summer and permit sunlight through the branches in the winter. Figure C-14 illustrates these concepts.

Selection of Landscape Plants
Trees and shrubs, meeting the most recent edition of the American Association of Nurseryman's Standards for nursery stock, should be planted at appropriate intervals along public rights-of-way, adjacent to buildings, and in other designated onsite planting areas. The type of planting should be determined by the topographic features and microclimate of the site. The spacing of plants should be determined by soil conditions, land use, terrace width, utility locations, and design theme. Appendix E sets forth the species characteristics of various trees, shrubs, ornamental grasses, groundcovers, and vines to aid in the selection of landscape plantings based, in part, upon species hardiness to environmental conditions. For regulatory purposes, Appendix E also recommends desirable sizes and spacing of certain plant species to be used for buffering or screening. The installation of flowers should only be encouraged if properly maintained; otherwise, groundcover or ornamental grasses could be used, which require little maintenance.

Street Trees
Street trees should be provided along public rights-of-way to reduce air temperature by providing shade, and reduce air pollutants by converting carbon monoxide to carbon dioxide. Appendix F provides a list of trees that may be used as street trees. A minimum of one deciduous shade tree of at least two inches in diameter measured 4.5 feet—about chest height—above ground level and meeting the American Association of Nurserymen's Standards for nursery stock should be planted for each 50 feet of street frontage. In certain areas, trees could have some randomness or informality, such as staggering, in their arrangement to avoid the urban appearance that regular spacing may evoke, and could be planted closer together than suggested in Appendix F depending on the type of tree selected, the desired design effect to be achieved, and the amount and quality of growing space provided for the root system. Existing healthy trees that are noninvasive and properly protected should be allowed to count towards a community's street tree requirement.

Figure C-12

PROTECTION OF EXISTING TREES

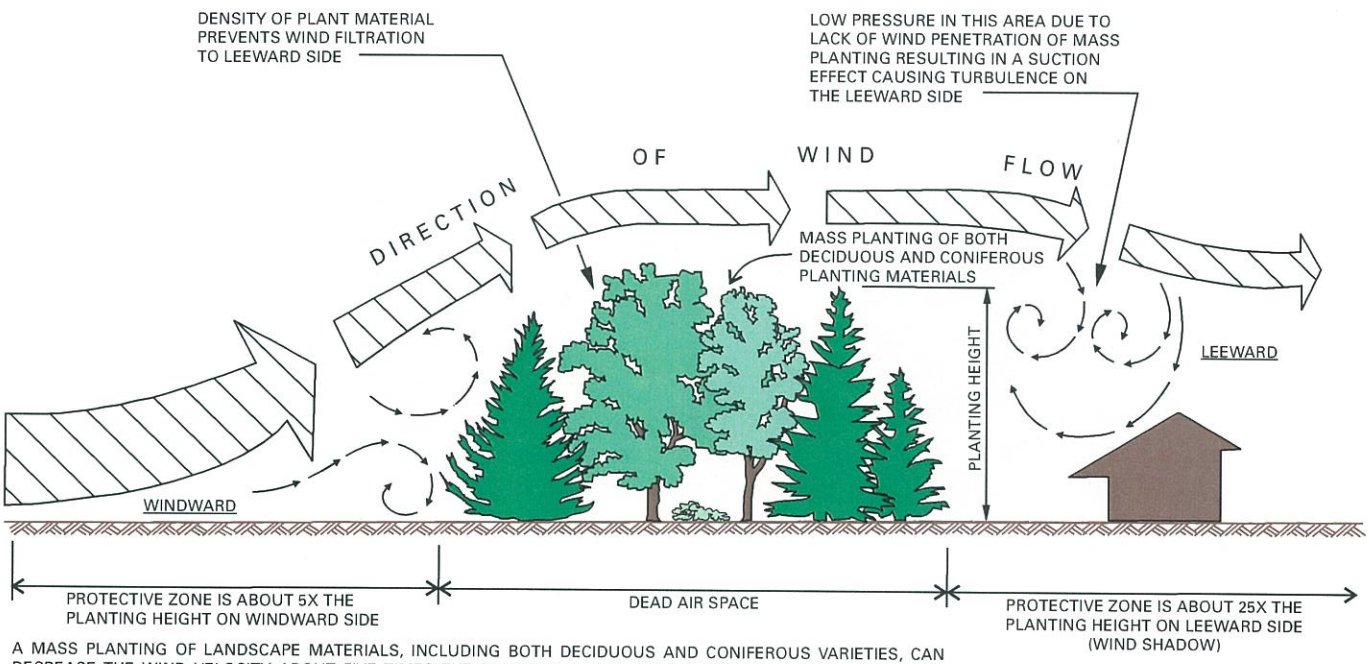


Source: SEWRPC.

Figure C-15 shows the minimum distances a street tree should be located from certain physical features within a street right-of-way. Wherever possible, street trees should be planted outside of roadside swales, near the street right-of-way line as illustrated earlier in Figure C-1. Trees could be installed on gentle slopes with proper staking. As an alternative, due to steep slopes or other physical constraints, such trees could be planted outside of street rights-of-way on adjoining lots in proposed subdivisions, but preferably no more than five to 10 feet from the street right-of-way line. Property owners would be responsible for maintaining the trees.

Figure C-13

LANDSCAPING FOR PROTECTION FROM WIND

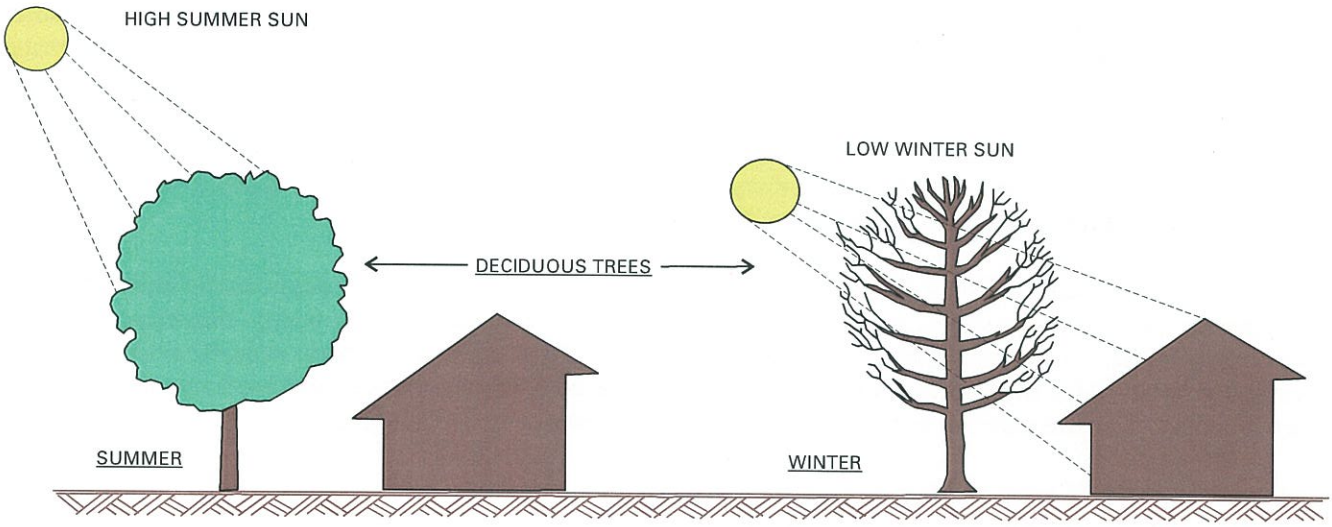


A MASS PLANTING OF LANDSCAPE MATERIALS, INCLUDING BOTH DECIDUOUS AND CONIFEROUS VARIETIES, CAN DECREASE THE WIND VELOCITY ABOUT FIVE TIMES THE PLANTING HEIGHT ON ITS WINDWARD SIDE AND ABOUT TWENTY-FIVE TIMES ITS HEIGHT ON THE LEEWARD (WIND SHADOW) SIDE OF THE MASS PLANTING.

Source: SEWRPC.

Figure C-14

DECIDUOUS LANDSCAPE PLANTING AND SEASONAL SOLAR ACCESS

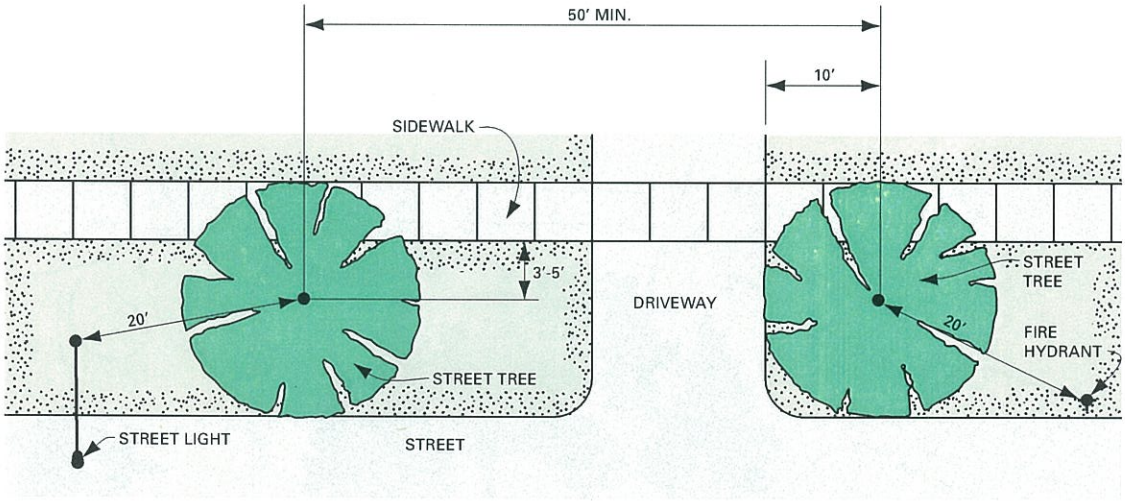


GENERALLY, LANDSCAPE PLANTINGS TO THE SOUTH OF STRUCTURES SHOULD BE BROAD, DECIDUOUS SPECIES WITH OPEN TWIG PATTERNS, AFFORDING THE PASSAGE OF LIGHT THROUGH THE BRANCH STRUCTURE IN THE WINTER. THE CHOICE OF DECIDUOUS PLANTINGS SHOULD BE MADE SINCE THEY DROP THEIR LEAVES IN THE FALL AND ALLOW LOW WINTER SUN TO PENETRATE THEIR BRANCHING STRUCTURE. IN THE SUMMER, THE DECIDUOUS PLANTINGS CAN ALSO PROVIDE SUN SHADING OF THE STRUCTURE, THUS LOWERING UNWANTED SUMMER HEAT GAIN.

Source: SEWRPC.

Figure C-15

MINIMUM STREET TREE PLANTING DISTANCES IN PUBLIC RIGHTS-OF-WAY



Source: SEWRPC.

Median Landscaping

While recognizing traffic visibility requirements, large elevated plant beds, such as those shown in Figure C-16, should be provided in all future street medians, especially if these streets also function as gateway thoroughfares, to dramatically improve the streetscape of the community. Streetlight poles should contain colorful banners, or at least on poles at selected locations such as median openings and/or street intersections, for aesthetic purposes and to further instill a sense of place, while observing traffic visibility requirements.

Any proposed landscaping in street rights-of-way should be coordinated with the government agency that has jurisdiction. For example, landscaping in state trunk highway rights-of-way requires a permit from the Wisconsin Department of Transportation (WisDOT). WisDOT permits plants with a trunk diameter of four inches or greater in the tree banks alongside highways with low speed limits, but prohibits such plant sizes in the medians. Tall shrubs shaped into a tree form, instead of large deciduous trees, could provide some vertical accent in the highway medians, as illustrated in Figure C-16. If WisDOT was to grant a special exception to its requirement and permit plants that would grow to a trunk diameter of four inches or greater in the medians, then deciduous shade or ornamental trees could be used in lieu of the tree-form shrubs.

Raised medians four feet or less in width should not be comprised of asphalt, but should contain either concrete or preferably decorative masonry, or even flowers and ornamental grasses if properly maintained. Raised channelizing islands should also consist of decorative brick and not unattractive plain asphalt, since they may serve as a safe haven for pedestrians waiting to cross busy streets. As an alternative, such medians may contain a mixed brick and concrete masonry pattern or a color-stamped concrete or asphalt pattern.

"Gateway" or Main "Entryway" Landscaping

Main "entryways"—sometimes referred to as "gateways"—into parks, historic districts, village centers, and business centers should be well-defined with attractive landscaping and signs to provide a sense of identity as well as direction. Collector and minor land-access streets functioning as main entrances into business centers should contain an attractive entryway that may consist of landscaped boulevard-type street entrance. Proper design and maintenance of landscaped entryways, especially those containing center landscaped islands, are crucial for

retaining aesthetic appeal and function without obstructing traffic visibility or turn movements. Figure C-17 illustrates alternative landscape designs for such "entryways." Other alternative landscaping layouts are provided in Figure C-20. Low ground—"monument" signs—rather than high pole or pylon signs, are recommended. The Village has determined that the upkeep of most landscaped entryways, except those representing the Village as a whole such as defined "gateways," should be primarily the responsibility of property owners or private organizations.

Buffer and Perimeter Landscape Strips

Perimeter landscape strips, which may also function as a landscaped buffer strip, should be located around parcels to provide open space for attractive landscaping, screening from incompatible lands uses, and filtration of stormwater runoff. These strips also help define the boundaries of properties and entrances and provide a separation between parking lots and public rights-of-way. Such strips, however, are not necessary for adjoining sites that share entrances, traffic aisles, or parking lots at the common lot line.

Landscaped buffer strips, sometimes referred to as transitional yards, should be provided between incompatible uses to screen or block visual nuisances, air and noise pollutants, or other negative impacts. Buffers could consist of various landscape features such as earth berms with landscape plantings; fencing and walls with plantings; wide open spaces; and grade separations in order to effectively buffer between dissimilar uses. Landscaped buffer strips provided along public streets should be designed to ensure a desired visual character of the community. Figure C-18 illustrates alternative landscaping that could be provided in such buffer strips, including those along the rear of reverse-frontage lots. Openings for pedestrian or bicycle access should be provided, and the standards for vision triangles mentioned earlier should be recognized. Also, buffers strips should not be located on any portion of existing or dedicated rights-of-way.

Building Foundation Landscaping

Landscaping adjacent to building foundations contributes to the overall aesthetics of the site as well as the architectural attractiveness of a building, as graphically illustrated in Figure C-19. Landscaped areas at least five feet wide, or preferably wider, and comprised of a combination of decorative mulch, flowers, ornamental grasses, groundcover, shrubs, or trees should be provided adjacent to building elevations, excluding entrances, visible from streets and parking lots. Foundation planting beds need not be continuous nor directly against the building. Planting areas could be consolidated into large groupings of beds instead of a continuous planting strip and located at or near the dripline of roof overhangs as illustrated in Figure C-19. These planting areas could also reduce air-conditioning cost by absorbing potential refraction of warm solar radiation from adjacent pavement into buildings.

Sign Landscaping

A landscaped bed should be placed at the base of freestanding advertisement signs to improve the aesthetics as well as noticeability of the signs. The size of the planting area should contain a length that is at least 1.5 times the length of the sign face and a width that is at least six feet. The planting area should consist of a combination of decorative mulch, flowers, ornamental grasses, groundcover, or shrubs without obstructing the sign face, as illustrated in Figure C-20.

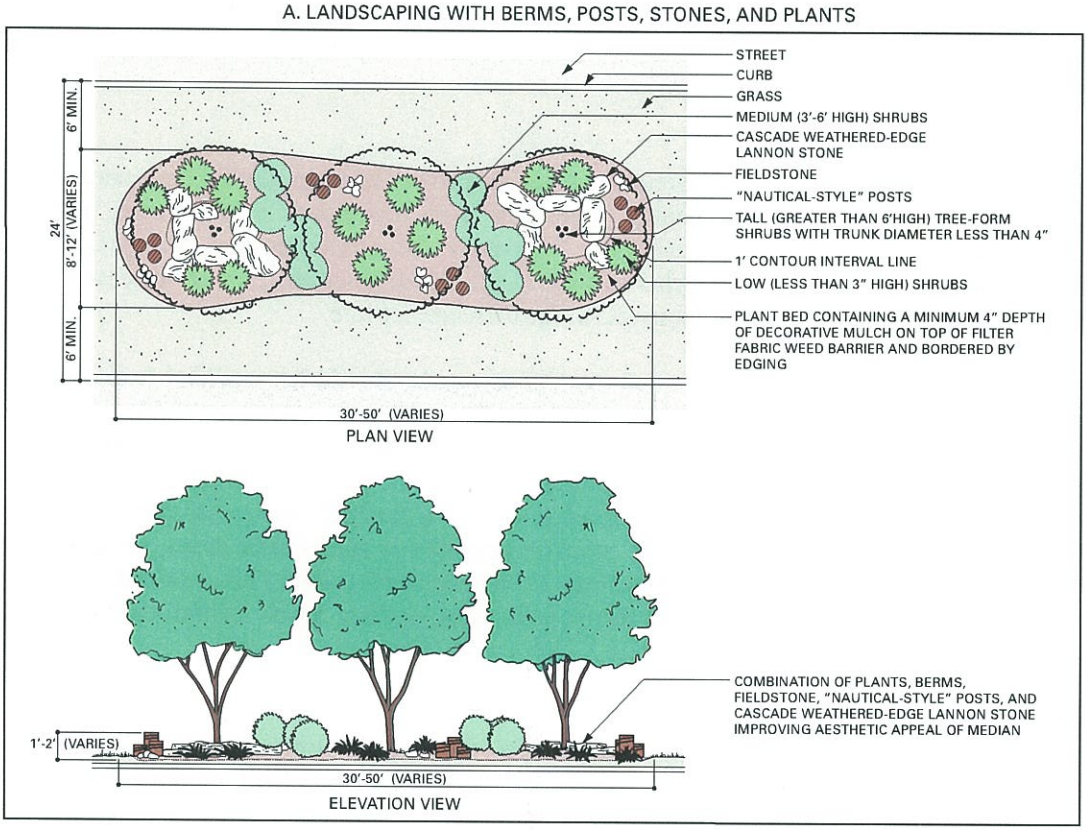
Interior Parking Lot Landscaping

For parking lots consisting of more than 20 spaces, reasonably dispersed landscaped areas should be provided within the interior of the parking lot. In general, the size of such landscaped areas should not be less than six feet wide, and no less than nine feet wide when trees are provided. At the far end of each parking bay, or row of spaces, a landscaped island of a similar dimension as a parking space should be provided to separate the bays from driveways or traffic lanes. The dimensions of a landscaped island may vary from the parking space dimension to provide desirable geometric design features, such as rounded corners and angles, to facilitate maneuvering of automobile traffic. Trees should be provided at the rate of one deciduous tree at least two inches in caliper measured 4.5 feet—about chest height—above ground for every 21 parking spaces and should be located in the landscaped areas provided within the interior of the parking lot. Location of landscaped areas,

Figure C-16

ALTERNATIVE LANDSCAPE BEDS FOR HIGHWAY MEDIANS

A. LANDSCAPING WITH BERMS, POSTS, STONES, AND PLANTS



B. LANDSCAPING WITH PLANTERS AND PLANTS

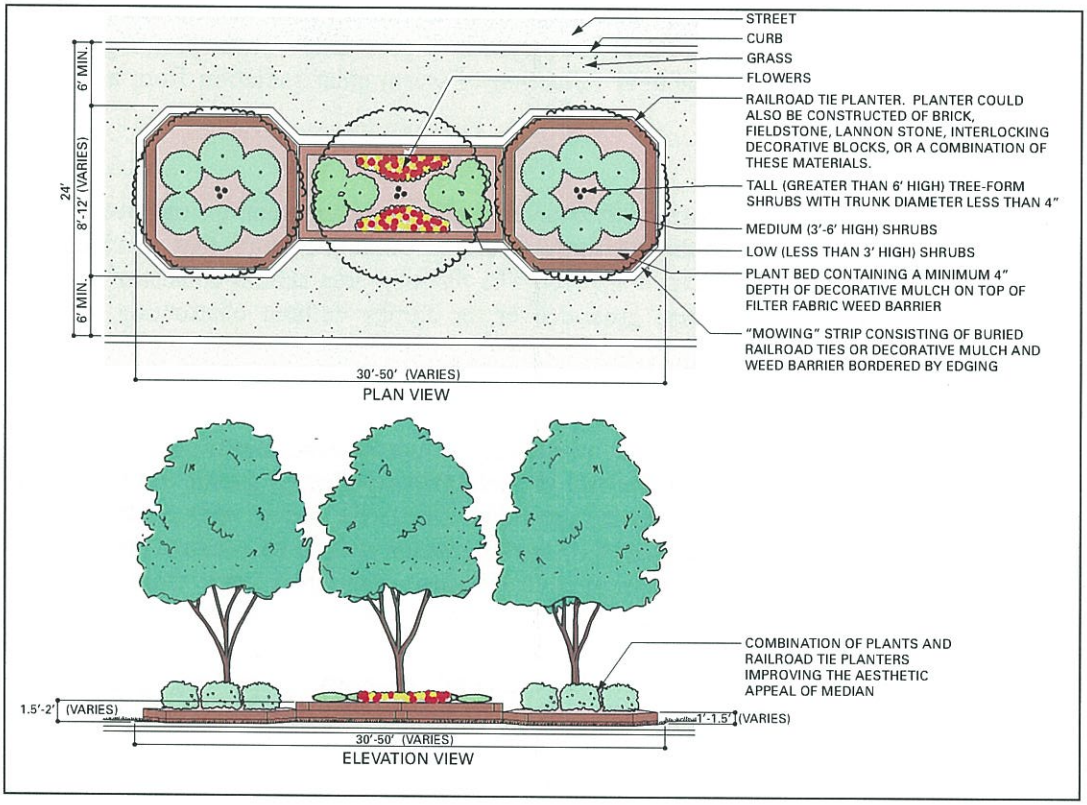
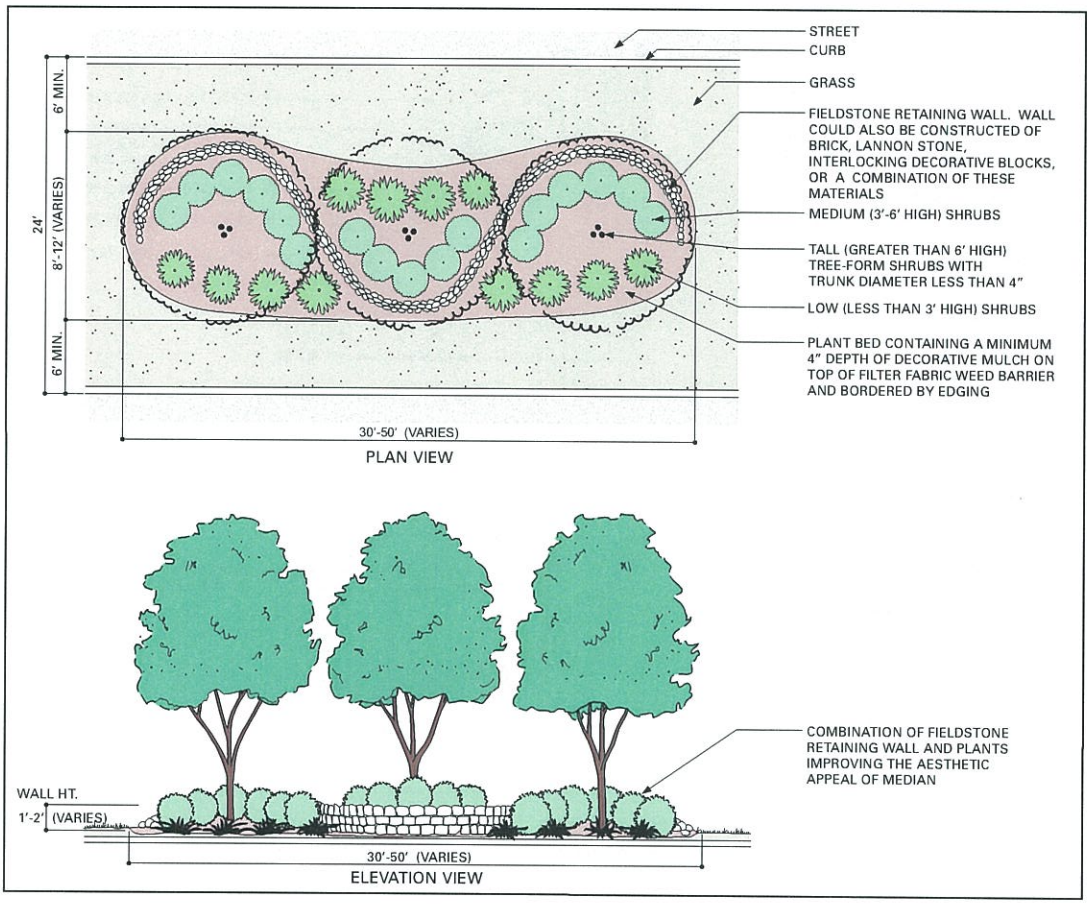


Figure C-16 (continued)

C. LANDSCAPING WITH FIELDSTONE WALL AND PLANTS



Source: SEWRPC.

selection of plant materials, protection afforded the plantings, including curbing and/or wheel-stops, and provision for maintenance should be considered. Landscaping should be provided in parking lots similar to that shown in Figure C-21.

It is important to note that the provision of landscaped areas in parking lots is recommended not only for aesthetic purposes, but also for safety and functional reasons. Landscaped peninsulas or islands separate parked vehicles from driveways or traffic lanes; provide an indication of the parking orientation and layout, especially if parking stripes are absent; provide additional snow storage areas; and provide a visual clearance area, except for the minor obstruction of a tree trunk or light pole in landscaped areas, for vehicles driving out of the general parking area onto adjacent driveways or traffic lanes. Peninsulas or islands that also function as visual clearance areas should maintain a clear zone between the heights of 2.5 feet and 10 feet above the adjacent mean pavement grade. Turf grass should be avoided unless properly maintained.

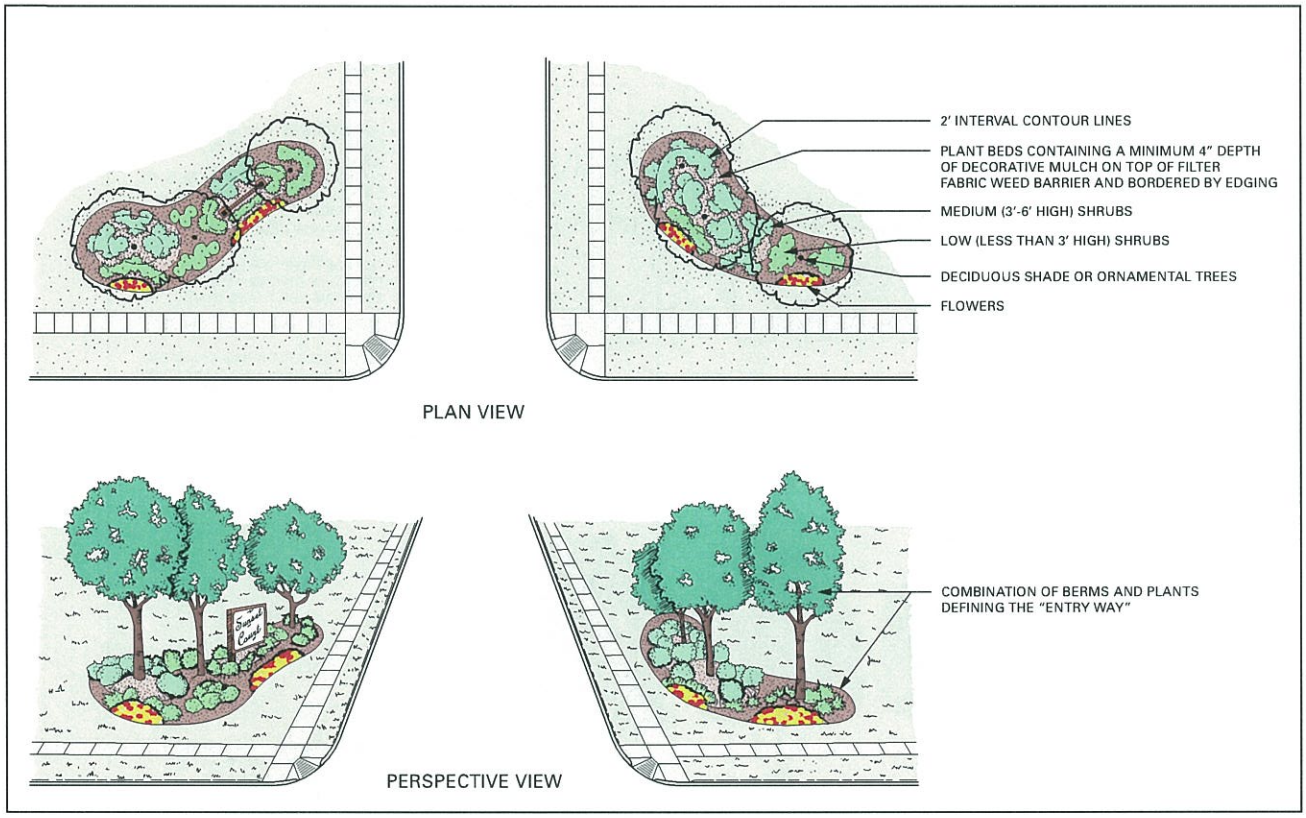
Parking and Service Area Screening

Parking areas for five or more vehicles and loading/unloading service areas, if adjoining a residential use, should be screened from such residential uses by a solid wall, fence, berm, dense evergreen planting, or other effective

Figure C-17

ALTERNATIVE LANDSCAPING FOR MAIN "ENTRYWAYS"

A. LANDSCAPING WITH BERMS AND PLANTS



B. LANDSCAPING WITH RETAINING WALLS AND PLANTS

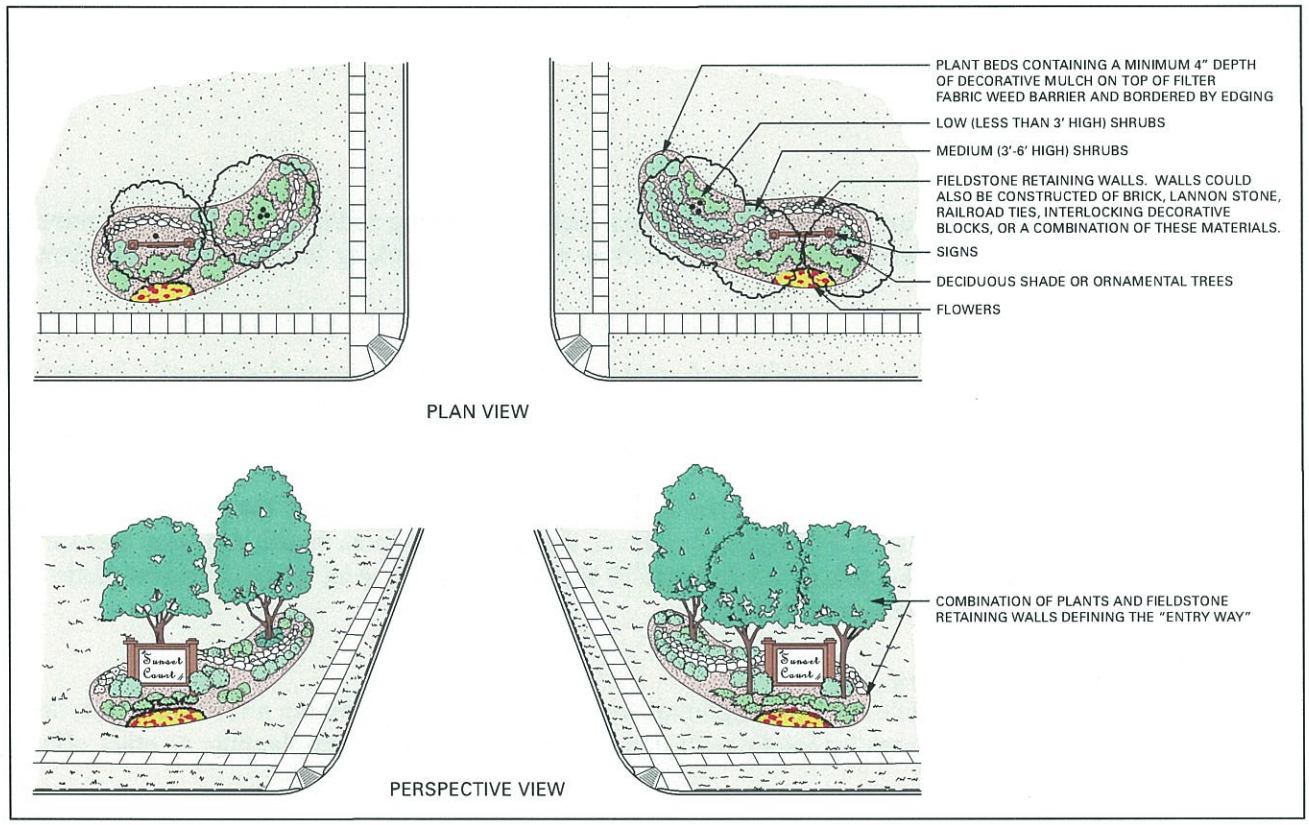
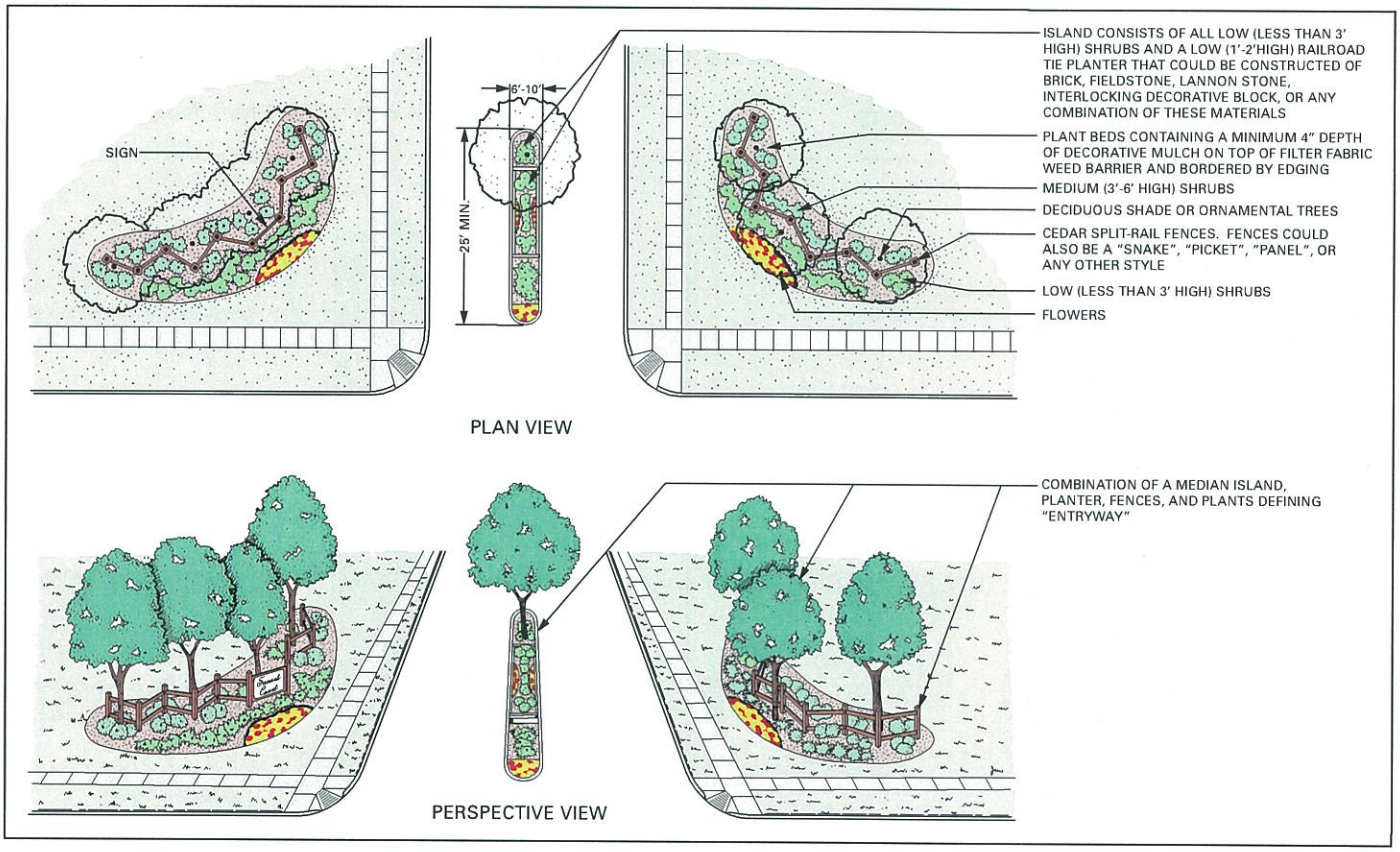
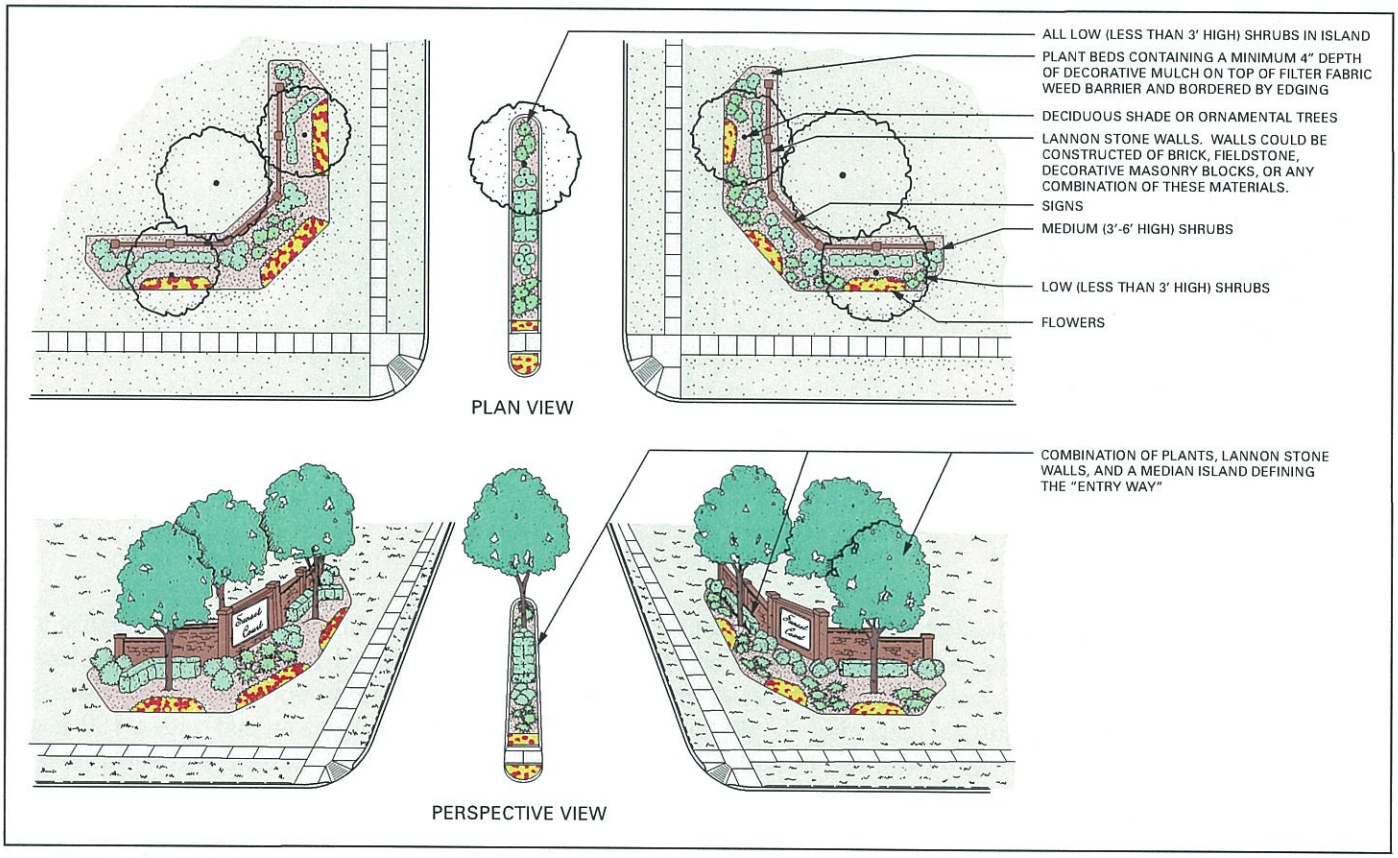


Figure C-17 (continued)

C. LANDSCAPING WITH AN ISLAND, FENCES, AND PLANTS



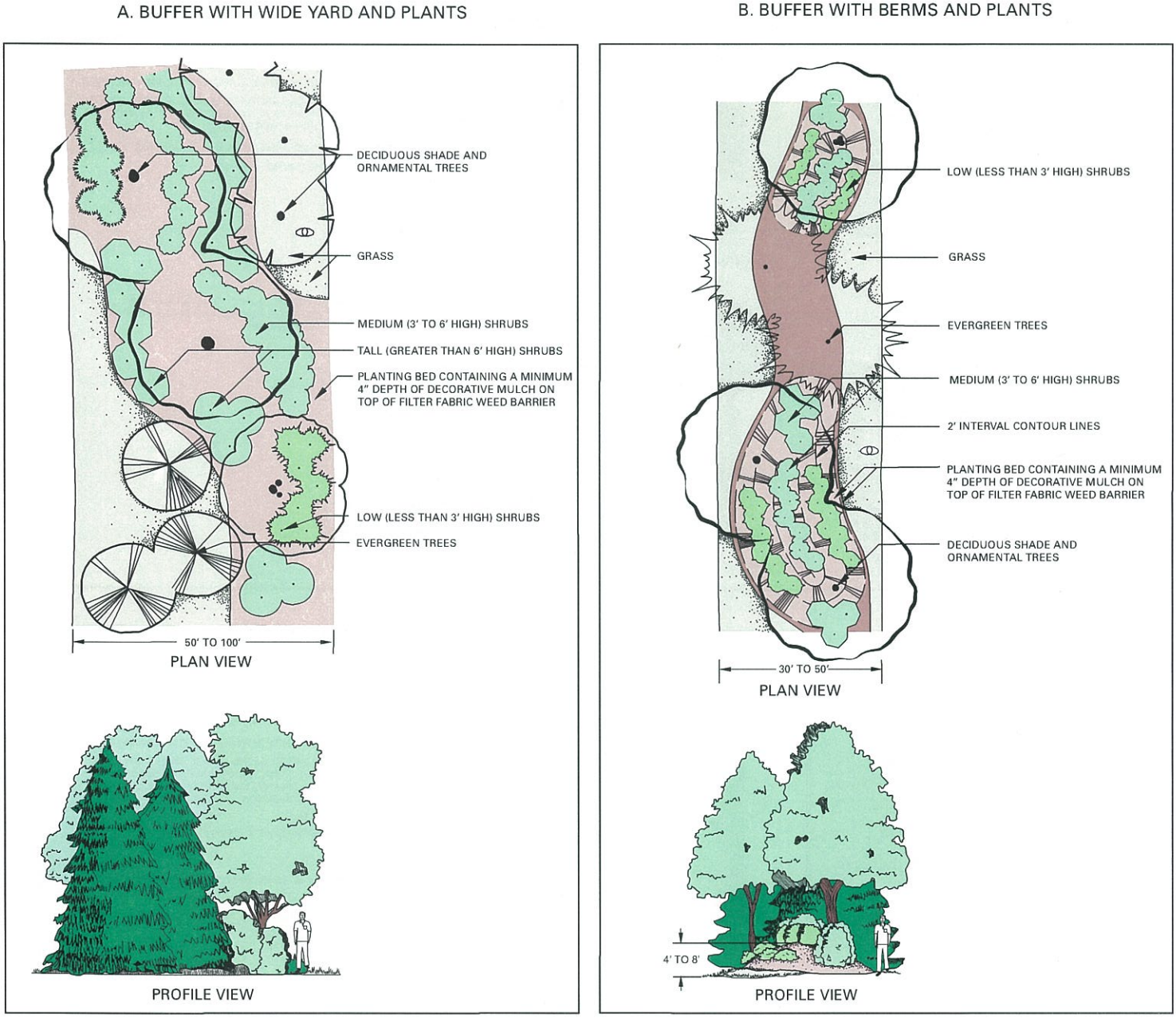
B. LANDSCAPING WITH AN ISLAND, FREESTANDING WALLS, AND PLANTS



Source: SEWRPC.

Figure C-18

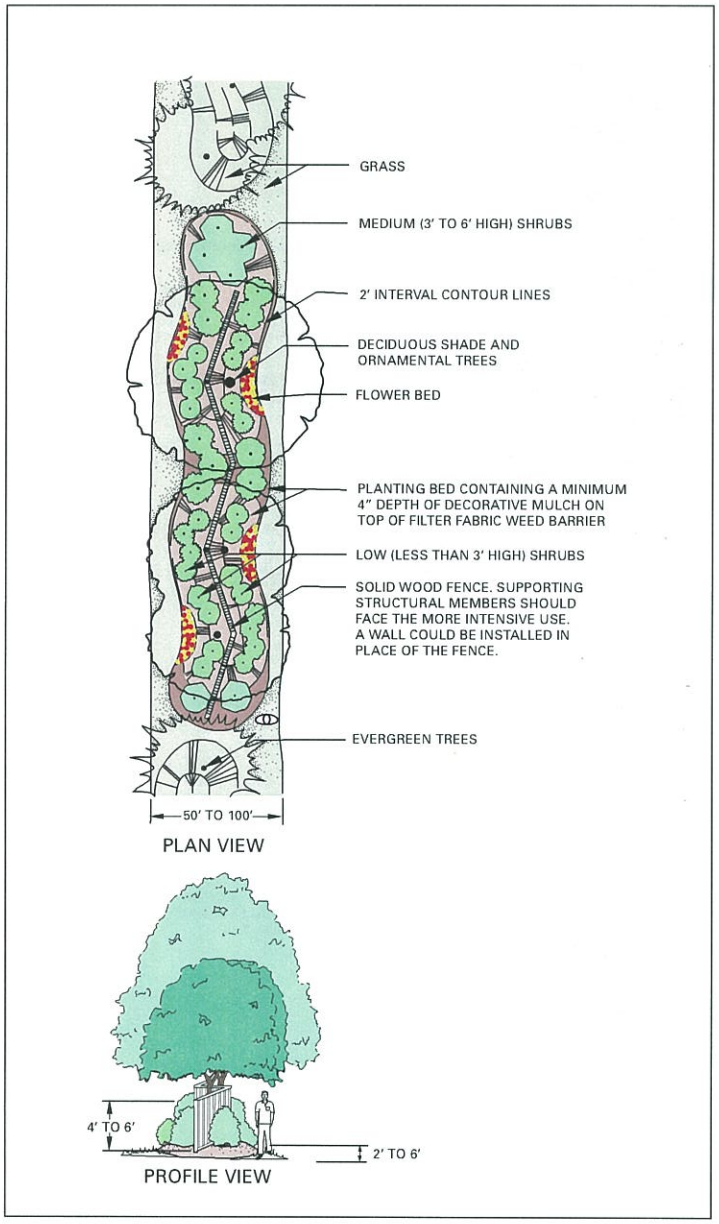
ALTERNATIVE LANDSCAPING FOR BUFFERS BETWEEN INCOMPATIBLE USES



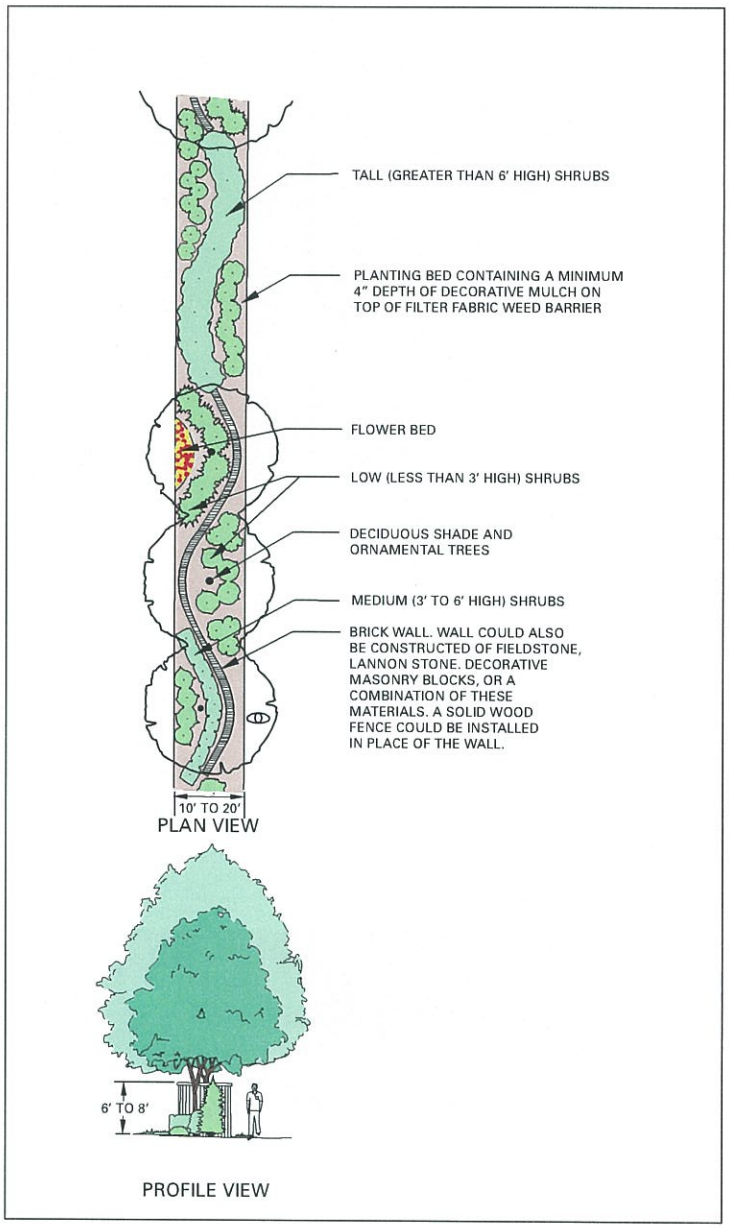
means, constructed and maintained at a height of at least six feet. Loading docks should be located preferably to the rear of buildings or, alternatively, to the side of buildings, particularly if located on reverse-frontage lots, facing away from public view, including from street rights-of-way. If this orientation is not practical due to site constraints, then the abovementioned screening should be provided. Parking lots visible from and within 100 feet of a street right-of-way and visible from the Glacial Drumlin Trail should be partially screened along at least 75 percent of their perimeter to "soften" the visual effect of such a use. This parking lot screen should be evenly

Figure C-18 (continued)

C. BUFFER WITH BERMS, FENCING, AND PLANTS



D. BUFFER WITH WALLS AND PLANTS



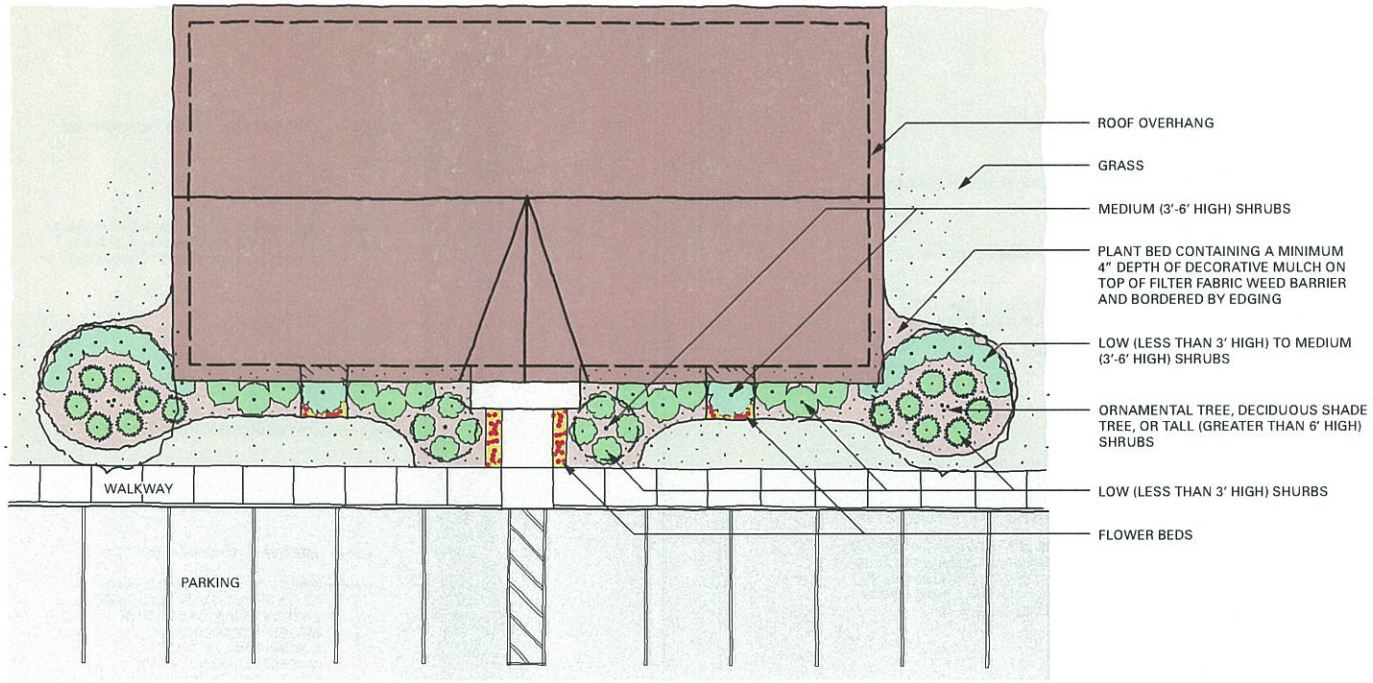
Source: SEWRPC.

distributed and could consist of a combination of plantings on top of berms or in planters, provided the combined height is at least three feet above the parking surface after three years. Figure C-6 illustrates alternative landscape screening for parking lots visible to the public. The parking lot screen may be reduced in height or eliminated if a difference in grade will screen the parking lot. Also, openings for pedestrian and bicycle access should be provided, and the standards for vision clearance triangles should be recognized.

Figure C-19

ALTERNATIVE LANDSCAPING FOR FRONT ELEVATIONS OF BUILDINGS

A. LANDSCAPING ALONG BUILDING FOUNDATION WITH CONTINUOUS PLANT BEDS



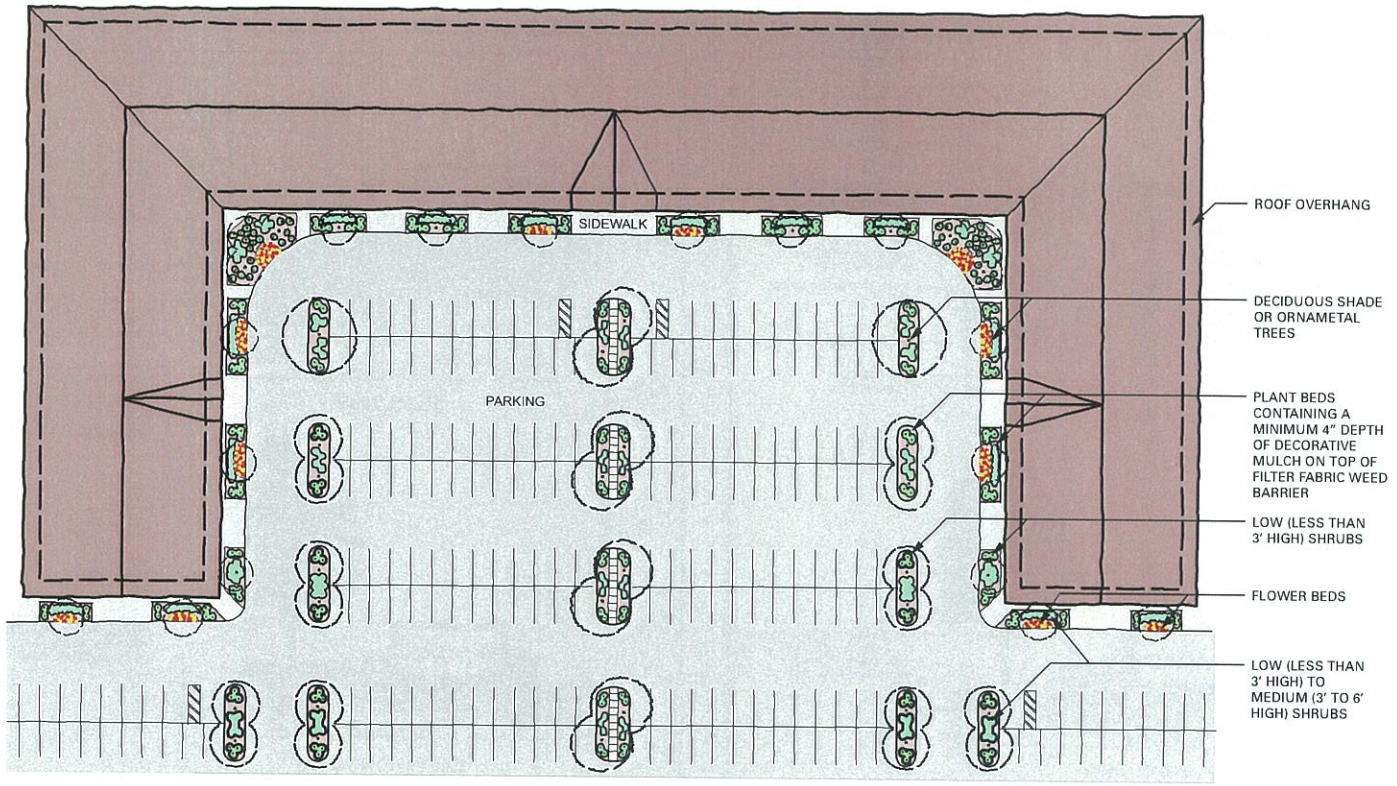
PLAN VIEW

ELEVATION VIEW

If a berm is used as a screen, it should have a minimum height of 1.5 feet and a crown of at least four feet wide, with side slopes no greater than one foot of vertical distance to four feet of horizontal distance. The berms should be curving or undulating. Fences and walls, excluding planters, should be constructed no less than three feet high and should be built of material compatible with the principal building of the site. Where applicable, gaps should be provided between the screen to allow for pedestrian and bicycle access.

Figure C-19 (continued)

B. LANDSCAPING WITH GROUPINGS OF PLANT BEDS NEAR BUILDING FOUNDATION AND ROOF OVERHANG



PLAN VIEW

ELEVATION VIEW

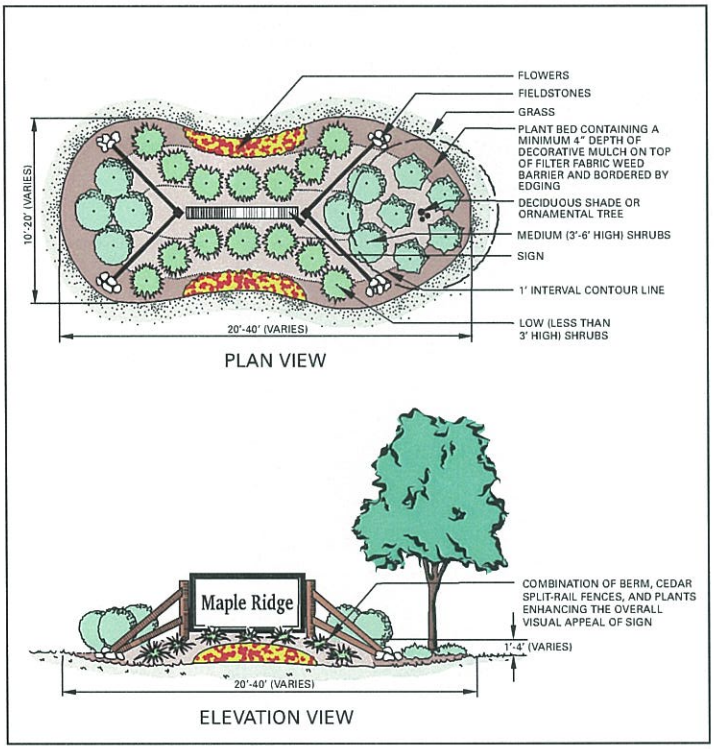
Source: SEWRPC.

When only plantings are used for screening, the width of the perimeter landscape area should be at least of 10 feet. If berms are provided as barriers, the width of the landscape area should be adequate to accommodate the size of the berm based on their slope, crown, height, and form. When structural barriers are used, the minimum width could be five feet. Plantings should be provided between the structure and the adjacent property line in order to reduce the visual impact and monotony of a continuous structure.

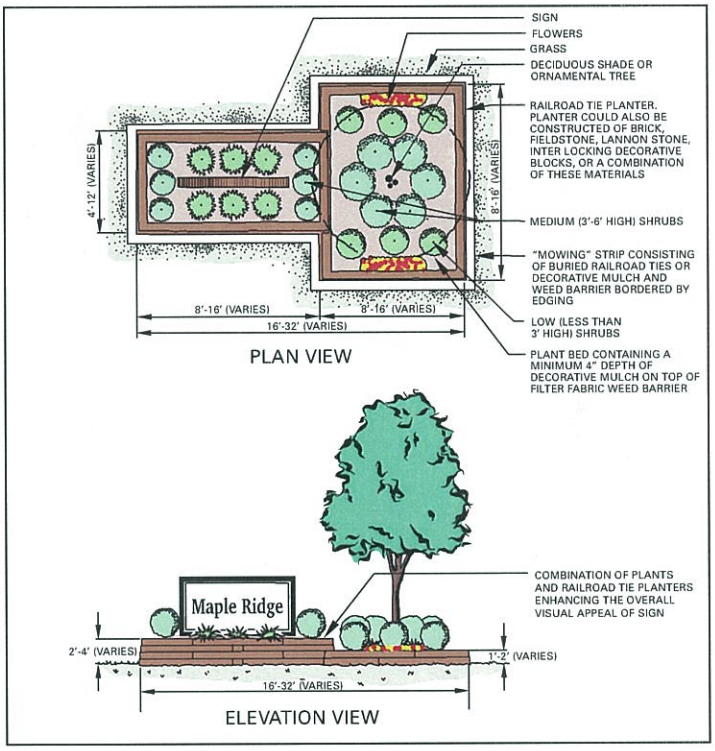
Figure C-20

ALTERNATIVE LANDSCAPING FOR FREESTANDING ADVERTISEMENT SIGNS

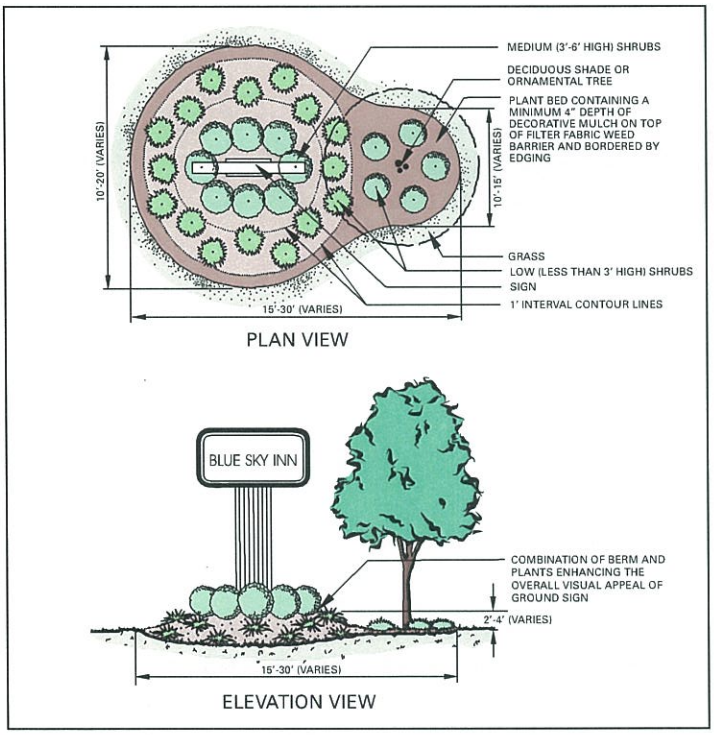
A. LANDSCAPING WITH BERM, DECORATIVE FENCES, AND PLANTS



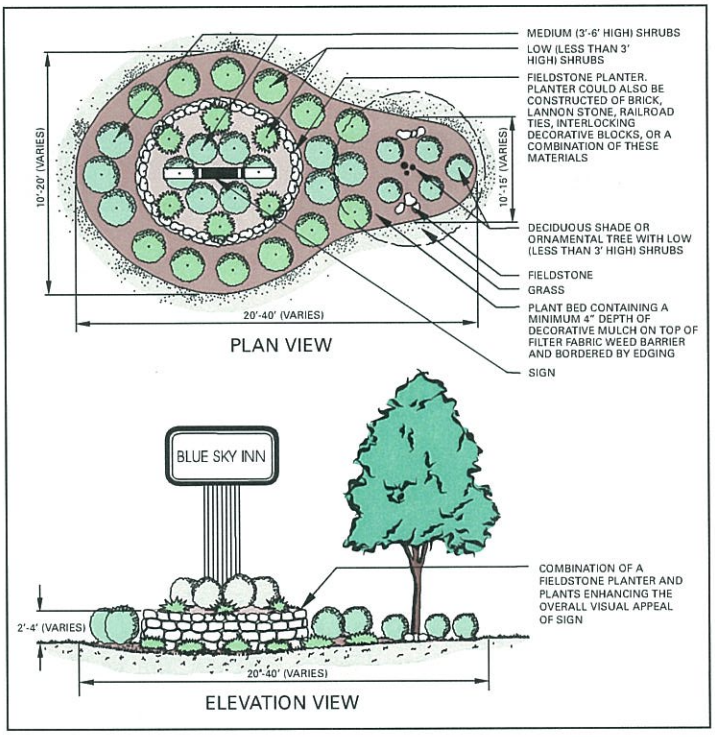
B. LANDSCAPING WITH PLANTS AND PLANTERS



C. LANDSCAPING WITH BERM AND PLANTS



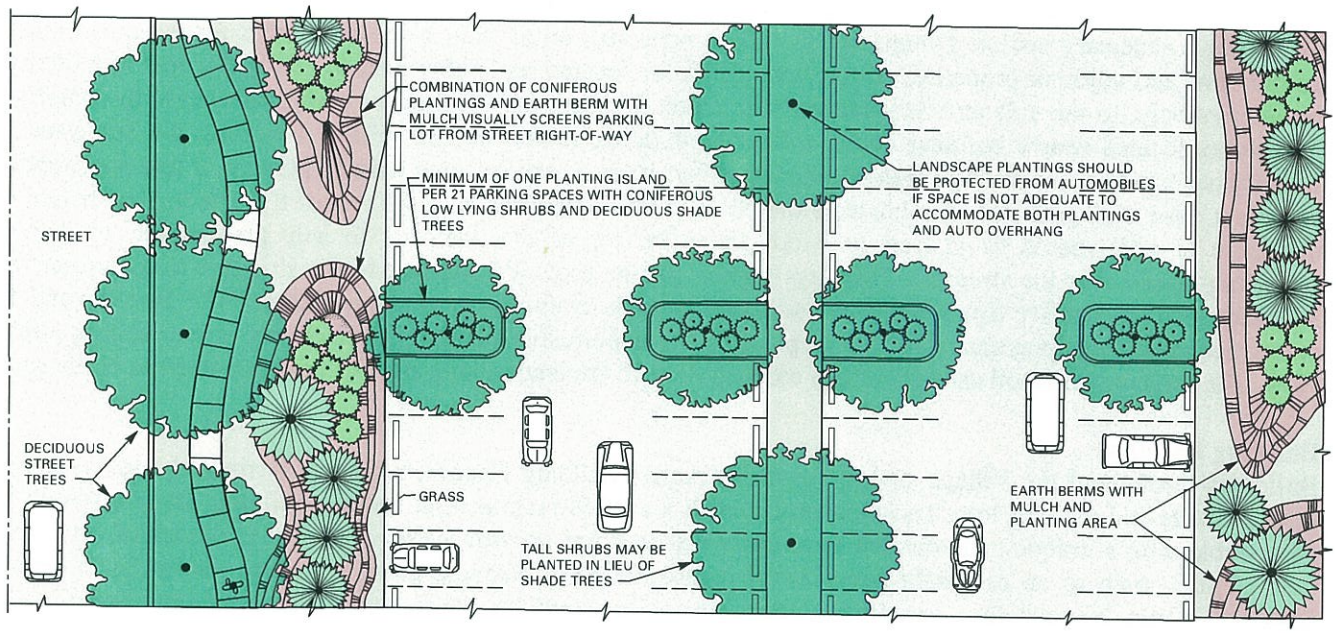
D. LANDSCAPING WITH FIELDSTONE PLANTER AND PLANTS



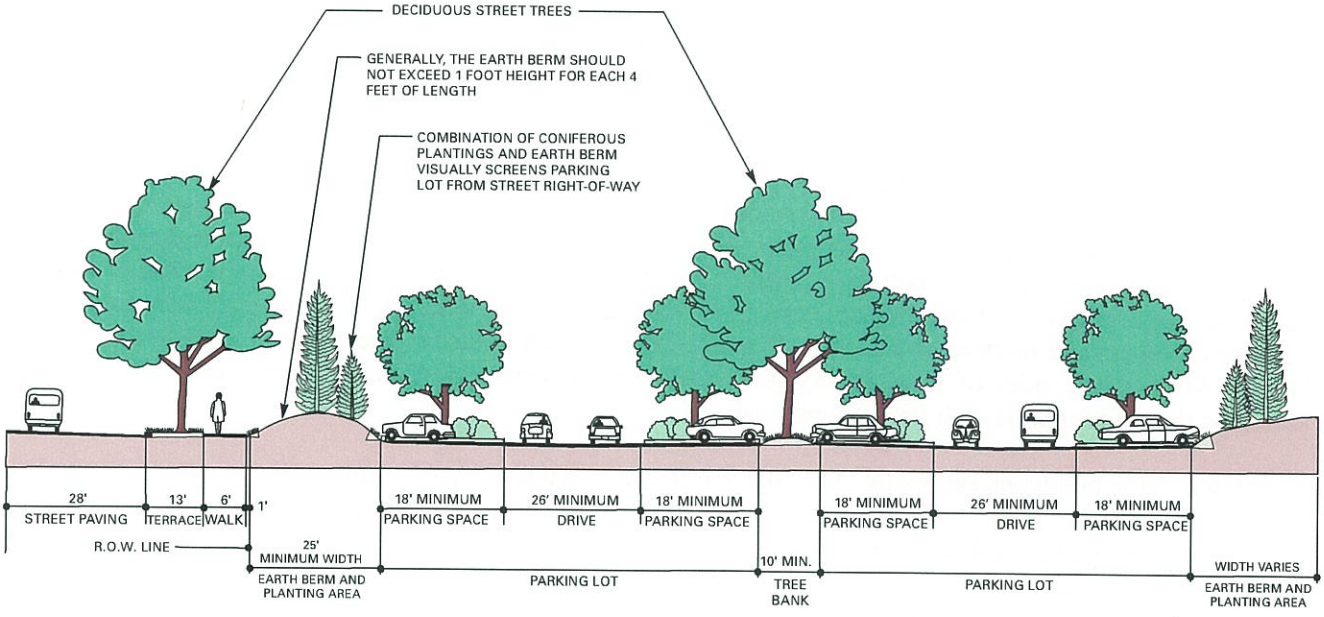
Source: SEWRPC.

Figure C-21

RECOMMENDED LANDSCAPING FOR PARKING LOTS



PLAN VIEW



SECTION VIEW

Source: SEWRPC.

Outside Storage Area Screening and Surfacing

Outside storage areas for inventory, materials, equipment, supplies and other materials utilized in the day-to-day operation of a principal business use should be hard-surfaced with either concrete or asphalt, and screened from public view with appropriate vegetation, fencing, or walls of a material compatible with the principal structure and the surrounding area. The outdoor display of certain products or merchandise may be allowed if the display

is essential to a business, such as a landscape-nursery or car-sales business, and attractive periphery landscaping is provided.

Dumpster and Mechanical Equipment Screening
Dumpsters, utility boxes, and other mechanical equipment should be unobtrusive or shielded from view while still maintaining necessary access. Dumpsters should be screened, on all four sides by a solid fence or wall, from public view and adjacent properties. Dumpsters should be located preferably next to and in the rear of buildings or, alternatively, to the side and be screened with material that is identical to, or compatible with, the building. Dumpsters located near a building could utilize the building as one of the walls surrounding the dumpster. If security is a concern, the front portion or gate could consist of a partial screen with 50 percent or less opaqueness, such as a chain link gate with durable slats that are a color compatible with the rest of the screen. The height of the fence or wall should be at least one foot above the top of the dumpster to help prevent the wind from spreading debris over the structure. Plantings should also be provided adjacent to the structure in a surrounding landscape bed at least five feet wide, where adequate space is available, as shown in Figure C-22. Rooftop and at-grade mechanical equipment should also be placed in an unobtrusive location or effectively screened from public view. The screening method used should be compatible with the landscaping and building architecture of the site.

Building Facades
Buildings throughout the Village should contain attractive building facades, including business buildings facing public streets and parking lots. To retain or establish a unified architectural setting, building designs should be compatible with a unique style desired for a particular location or with the predominant architectural style of a defined area, such as an established residential neighborhood, a business park, a historic district, or a central business district. Nevertheless, variations of the same style should be obtained to avoid monotony. Specifically, architectural style should not be overly restricted; however, proposed buildings should be reviewed on their individual merit based upon desired building design, building materials, longevity of the color choices (fad/non-fad), statement in relation to overall design theme, compatibility with the character and color of adjacent structures, similarity between the overall size and mass of the proposed and adjacent structures, and unity with existing structures on the project site. Buildings in the Village should preferably be one to two stories in height, but no more than three stories high in order to retain a "small village character" with a human scale.

To create attractive facades and some variation in architectural styles to avoid excessive repetition and drabness, emphasis should be placed on: the creation of a varied roof line on a building by using, for example, a pitched roof with dormers or multiple pediments with gables to break the roofline; use of some variation in door and window styles from small to large sizes and from square to round shapes that are still proportionate to the building mass; creation of well-defined main entryways, facade protrusions and recesses with porches and entryways, and wall offsets and recesses; use of columns, porticos, overhangs, projections, arcades, and arches; use of earth tone colors harmonious to the surrounding area and the Village as a whole, with bright colors used only for accent on trims or canopies; and mixture of attractive finished material, such as stone, brick, wood, or decorative masonry blocks. All building sides of multi-family residential, commercial, industrial, governmental, and institutional buildings should consist of such finished material.

In addition, large buildings, especially "big-box" retail stores, that are devoid of any architectural character should be avoided, since they typically consist of long continuous walls without a "break"—a protrusion or recession in the wall or a change in facade style. Public entryways should be clearly defined by the use of porticos, overhangs, or projections. For residential areas, garages should be de-emphasized without changing the building architecture. The front or main elevation of buildings facing public streets should not be overly dominated by more than 50 percent by the appearance of an individual garage, especially three-car garages, or a row of garages in multi-family residential areas with the large doors facing the front and the front yards, oftentimes occupied by mostly paved driveways with little landscaping. As alternatives, three-car garages could be oriented to face the side yard, and the row of garages for multi-family residential areas could be oriented to face the side or rear yards. Rows of doors for mini-warehouse or storage facilities should also be oriented to face side or rear yards, if possible. Otherwise, such doors should be buffered from public view.

Signs

General

In addition to conforming to the requirements of a community sign ordinance, signs should be designed to complement the overall character of the area and its buildings. Lettering on signs should be functional as well as visually pleasing. Truly functional lettering uses a typeface which is properly spaced and easy to read and makes its message clear from the distance at which it is intended to be read. Generally, the less cluttered and fewer the words on the sign face, the more likely people will be able to read the sign with ease. A master sign for developments with multiple tenants should display the owner, business, or shopping center name only, and should be used to reduce clutter by integrating existing signs and eliminating unnecessary ones; to provide a coherent sign with minimal verbiage; and to be positioned so that it would not blight the streetscape. The name of only a major anchor(s) of a shopping center should be allowed as an addition to this master sign. A permanent window sign should not occupy more than 25 percent of the pane on which it is displayed.

Low ground signs—"monument" signs—of no more than four to six feet in height supported by ornate columns or pillars on the sides and/or a structural base with a width of at least 75 percent of the width of the sign face, are usually considered more attractive and desirable than high pole or pylon signs, which are discouraged. All freestanding signs should ideally be panel signs supported by structures comprised of materials similar to or compatible with the building materials of the principal structure and be surrounded by attractive landscaping at the base. Wall signs attached to buildings should not extend above any roofline nor should wall signs and projecting signs extend above second floor window sills. Overall, the sign composition, structural material, color, logo, and location should be compatible with the building architecture.

Main "Entryway" and "Gateway" or Community "Welcome" Signs

Main "entryways" into parks, historic village centers, and business centers should be well-defined with attractive signs to provide a sense of identity as well as direction. Community "Welcome" signs or permanent banner-type signs extending across streets should also be provided at key locations along streets functioning as main "gateways" into a community, including the Historic Village Center. The design should be representative of the character of the community and should reflect the design theme desired by the community residents. Emblems of service clubs or charitable organizations of a community that are sometimes accommodated on community welcome signs should not obstruct or overly clutter the "Welcome" sign face. As an alternative, a separate panel with an overhead title "Service Clubs of Wales" could be provided to group and arrange the small emblem signs in a presentable manner.

Street and Wayfinding Signs

Street signs should be located at each street intersection and should be legible for all user groups. Simple "icon" or graphic symbol signs could also be used for aesthetic as well as wayfinding purposes such as, for example, identifying a public parking lot or providing symbolic directions to a public library. Unique street name signs should be provided that are different from the traditional rectangular street blades by consisting of a blue or red background with white letters and an icon at the end that reflects the community logo or neighborhood character. Even ornate street-sign poles and distinctively shaped street signs, such as elliptical or oval shapes, could be used for unique aesthetics.

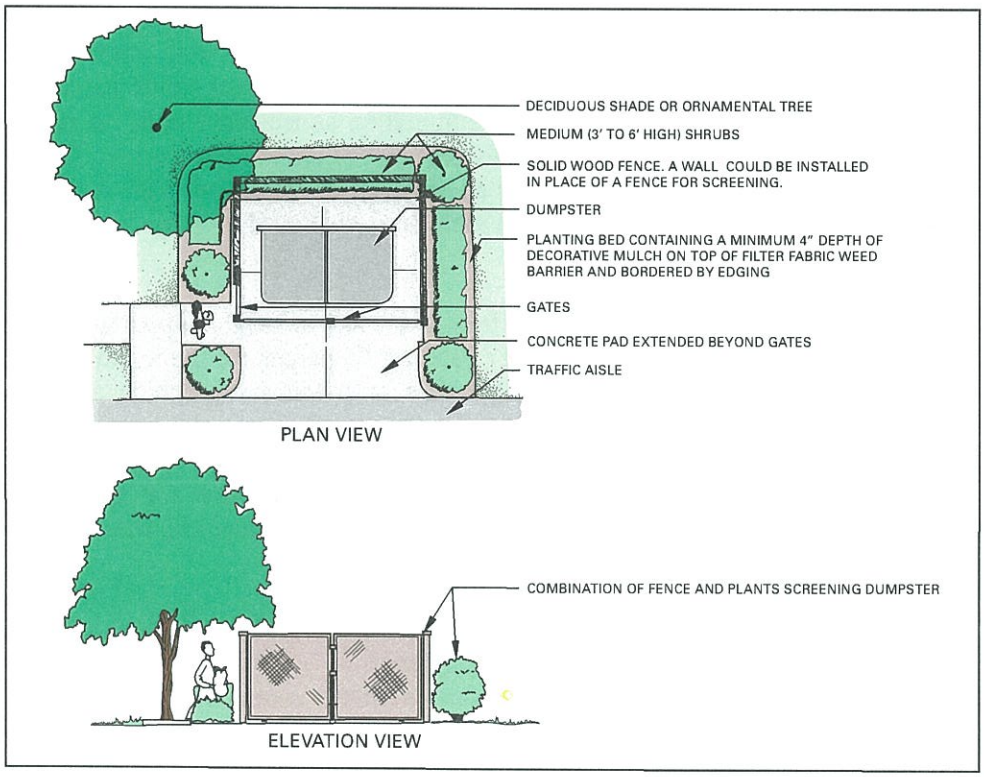
Street Light and Traffic Pole Styles

The traditional style of tall streetlights could be made more attractive by using colors, such as black or green, instead of the bare silver metal color. As an alternative, the poles could be colored black or green while the extended arm with the illumination head could remain silver. Low uniquely-designed street lights should preferably be installed along the "Main Street(s)" of a community. The style or color selected for street lights should be emulated in the poles of street signs and traffic signs and signals.

Figure C-22

ALTERNATIVE SCREENING FOR DUMPSTERS

A. SCREENING WITH FENCE AND PLANTS



B. SCREENING WITH WALL AND PLANTS

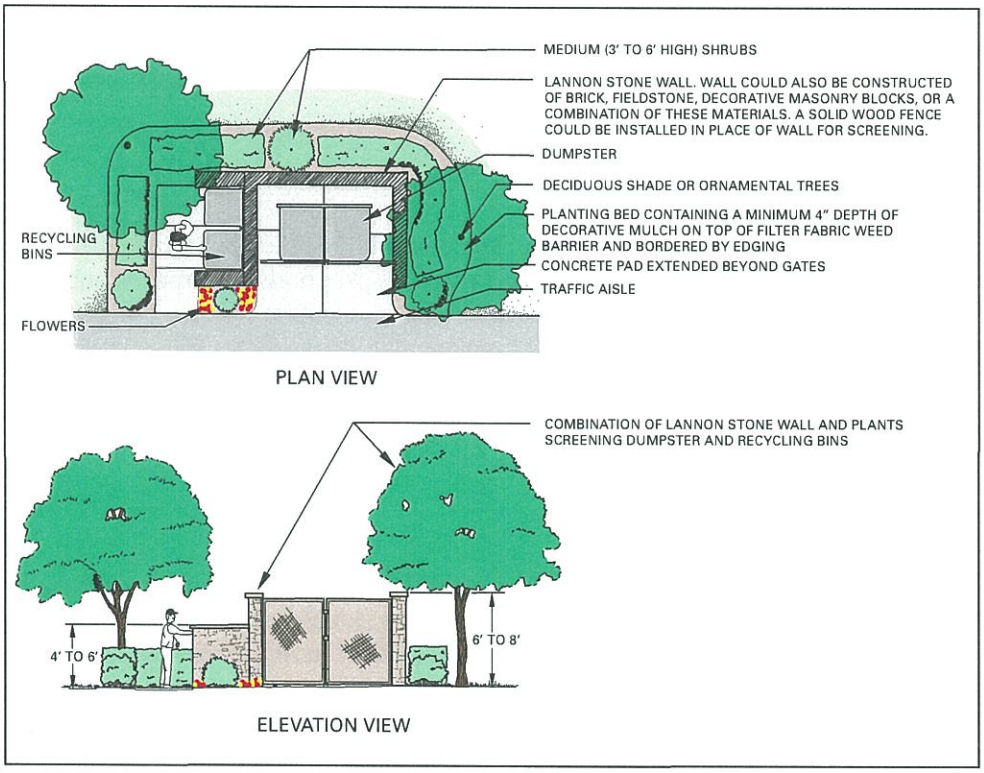
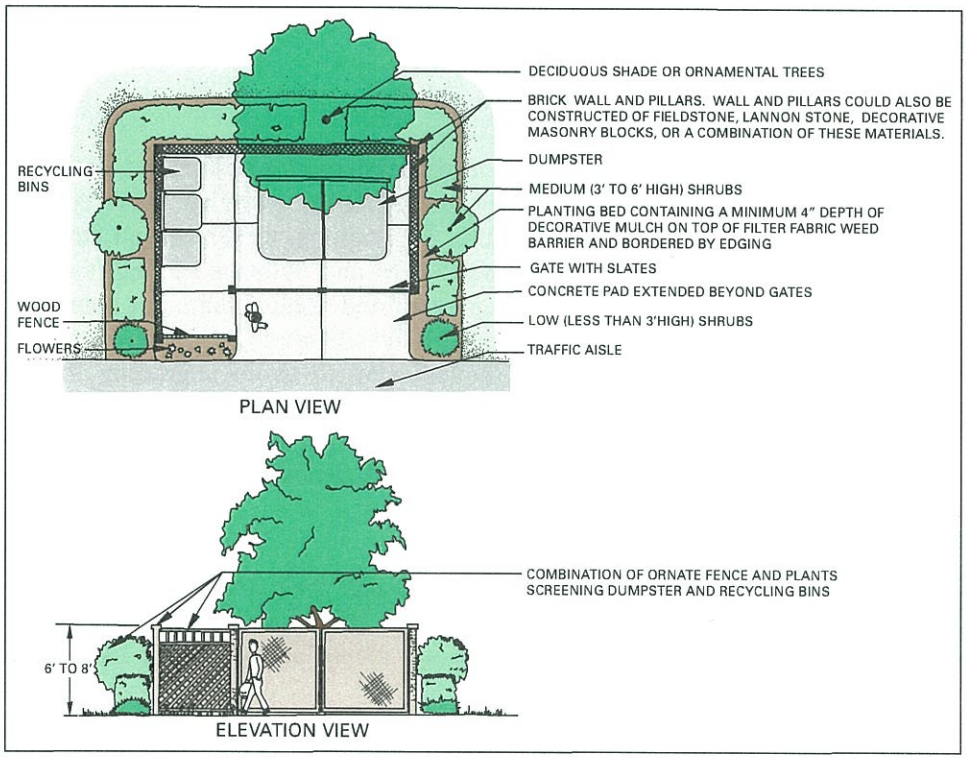


Figure C-22 (continued)

C. SCREENING WITH FENCE, WALL, AND PLANTS



Source: SEWRPC.

Utilities and Easements

Above-Ground Utility Cables

The location or relocation of above-ground utilities underground should be considered since these wires detract from the overall appearance of an area and typically add to visual clutter.

Utility and Drainage Easements

Utility easements of widths deemed adequate for the intended purpose, but no less than 10 feet wide, should be provided and centered on side and rear lot lines wherever possible or advisable for electric power and communication wires and conduits; storm and sanitary sewers; and gas, water, and other utility lines. Where a land division is traversed by a watercourse, drainageway, or street, an easement should be provided for drainage purposes.

Cellular Towers

Antennas preferably should be co-located on existing structures such as water towers, public buildings, utility transmission towers, farm silos, or barns. If a new freestanding tower is warranted, such structures should be designed with an unguyed, monopole style and to accommodate at least four antennas to reduce the need for, and the visual clutter of, additional structures in the vicinity. Guyed towers and lattice towers should be prohibited.

Ornate Bridges and Retaining Walls

When new bridges and retaining walls need to be installed or existing faceless bridges and walls need to be replaced, they should be constructed with an unique design instead of the bland traditional, one-size-fits-all style.

The facades of parapets and walls could consist of ornate materials such as fieldstone, Lannon stone, decorative masonry, interlocking geometrically-shaped blocks, ornate precast concrete panels, or poured-concrete walls with unique "color-stamped" patterns or geometric patterns defined by scorelines and "brushed" surfaces with smooth edges as opposed to plain poured-concrete surfaces. Unless a community wishes to intentionally screen motor vehicles, the parapet—low wall or railing—of bridges should be partially "open," and yet function as a barrier for safety reasons, so that motorists can see through the parapet to enjoy the scenery from the bridge, including those over waterways.

Stormwater Management Facilities

Stormwater management facilities should be adequate to serve a proposed development, and may include curbs and gutters; catch basins and inlets; storm sewers; open channels; roadside swales; culverts; water detention or retention facilities; infiltration facilities; and existing natural depressions, wetlands, and streams. The facilities should be of adequate size and grade to accommodate peak rates and volumes of runoff through and from a proposed development, and should be so designed as to prevent and control nonpoint source pollution and to present no hazards to life or property. When natural features on the site are to be incorporated in the stormwater management system, appropriate measures should be implemented to avoid degrading the quality of those features. Stormwater facilities should, as a minimum, meet the storm water management requirements for the Village of Wales and the design standards established by the Wisconsin Department of Natural Resources (DNR) in a document titled, *Wisconsin Storm Water Manual, Part Two: Technical Design Guidelines for Storm Water Best Management Practices.*

Stormwater detention or retention basins should have a 10- to 20-foot wide gently sloping "safety shelf" with a maximum depth of one foot around the perimeter and should be graded to a safe slope, no steeper than one vertical to four horizontal above the "safety shelf." Such basins should blend into the landscape with a natural form to avoid the "ice cube tray" appearance.

Erosion and Sedimentation Control

Earthmoving activities, such as grading, topsoil removal, mineral extraction, road cutting, waterway construction or enlargement, excavation, channel clearing, ditching, drain tile laying, dredging, and lagooning, should be so conducted as to prevent erosion and sedimentation and to minimize disturbance to natural fauna, flora, watercourses, water regimen, and topography. Construction activities should be planned so that the soil is disturbed a minimal amount of time. In general, cut and filled lands outside street rights-of-way should be graded to a slope not exceeding 25 percent or the angle of repose of the soil, whichever is less. All erosion control measures should meet the construction site erosion control requirements for the Village of Wales and the design standards identified by the DNR in a document titled, *Wisconsin Construction Site Best Management Practice Handbook.*

To help prevent erosion and sedimentation, a developer should plant grasses, shrubs, trees, and vines—the species and size of which should be determined based on those identified in Appendix E. The Village may require a developer to provide or install protection and other rehabilitation measures such as fencing, slopes, riprap, wells, revetments, berms, jetties, clearing, dredging, snagging, drop structures, brush mats, willow poles, and grade stabilization structures.

General Maintenance

A complete and thorough public maintenance program for public lands, as well as individual private maintenance programs, especially in commercial areas, should be established. Improvements to buildings and their continued positive appearance depend on proper maintenance procedures. Maintenance programs should include staking, watering, fertilizing, spraying, weeding, pruning, replacing and other general maintenance of landscape planting areas; picking up litter and emptying trash containers in a timely fashion; sweeping, cleaning, and repairing paved surfaces; and the care and maintenance of site furniture and the repair and/or replacement of nonfunctioning streetlights and fixtures and other amenities. Establishing a maintenance program will help to ensure the continued attractiveness and viability of the community.

DESIGN GUIDELINES FOR THE HISTORIC VILLAGE CENTER

Design Concept

The Village should continue to improve the Historic Village Center, as defined on Map 19 in Chapter IV, as a vibrant, compact location of mostly residential uses mixed with limited, compatible small businesses and specialty stores while capitalizing on the popular Glacial Drumlin Trail. The Center should be designed with a human-scale focus with attractive streetscaping that complements unique buildings close to sidewalks or roads, further supporting a pedestrian- and bicycle-friendly environment.

Specifically, the Center should continue to project a "small-village" setting, possibly with a Welsh or "country" design theme, with buildings continuing to reflect the predominantly residential architectural character by using peaked roofs, such as gable or hip-style roofs, complemented with building facades consisting of light-colored material, such as cream city brick, or, preferably, natural materials such as wood, fieldstone, and/or native Lannon stone. Business buildings should also be constructed with a residential architectural style with pitched roofs as opposed to incompatible boxed-shaped, concrete block structures with flat roofs that are devoid of any architectural style, as illustrated in Figure C-24. The "country" landscape design character for the Center could consist of mostly natural landscaping, low fieldstone or limestone walls, and ornate open fences—with no more than 50 percent opaqueness—such as cedar split-rail fences, white picket fences, or decorative wrought-iron fences.

The character of the Historic Village Center should also continue to be defined largely by the presence of the Glacial Drumlin Trail with mostly open space between this trail and Main Street. The space on the other side of the trail and James Street could accommodate some buildings, such as narrow buildings with cedar-shingled, gable roofs over facades consisting of light, earth tone colors with fieldstone or native Lannon stone. Ideally, significant historic buildings in the surrounding "Welsh Hills" area, that otherwise may be demolished, could be relocated to this narrow strip of land to establish a historic settlement. Such a setting would not require converting as much open space or lawn to asphalt for parking purposes in comparison with that required for more intensive uses.

Entryway/Gateway Identification

A sense of arrival and definition to the Historic Village Center should be established at "entryways" or streets leading into the Center along with streetscape improvements, including street trees, decorative street lights, articulated crosswalks, and entrance monuments. Entrance monuments should be placed at key entryways—sometimes referred to as gateways—consisting of either permanent banner-type signs extending across streets or low monument signs made of natural stone or wood-carved material set on a decorative base, such as an ornate fieldstone or limestone wall, surrounded by attractive landscaping, as illustrated earlier in Figure C-17.

Parking Lot Locations

To retain a human-scale setting for the Center, parking lots in front of buildings, as shown in Figure C-24, should be avoided and preferably located in the rear yard, except for those adjacent to the Glacial Drumlin Trail which should be located in the side yard. Areas containing limited rear yard could locate parking lots in the side yard as an alternative while buildings would still be placed close to sidewalks or streets. Parking areas visible from streets and the Glacial Drumlin Trail, nevertheless, should be screened with landscaping that is consistent with the overall design theme desired for the historic Center.

Building Streetscape Facades

General

Buildings within the Historic Village Center should contain attractive facades, including those facing the Glacial Drumlin Trail. The guidelines herein are not intended to restrict individual architectural expression, but rather to direct the expression towards a standard of quality and compatibility with neighboring historical and residential buildings and to complement and contribute to a desirable community identity for the Historic Village Center. The structural shapes of buildings, their proportions, the placement of openings such as doors and windows, the placement of signs, and various other building details all contribute to the overall streetscape appearance.

Although the facades of two adjacent buildings may be distinctly different, their overall appearance can be made compatible through the proper use of these visual elements. Treatment plans for individual building facades should take into account the design character of the surrounding area and the various design guidelines developed herein to assure a degree of compatibility of architectural design with neighboring structures without being very dramatically different.

In the Village Center, many of the historic building facades still retain to some degree their original architectural character. Every effort should be made to enhance or recapture the original character of those buildings pursuant to the standards promulgated by the U.S. Department of the Interior for historic preservation projects, and as outlined in Objective No. 9 of Chapter VI. The character projected by historic buildings in the Center should be maintained by continuing to encourage new structures to respect the form, materials, and detailing of surrounding existing historic buildings. These guidelines need not necessarily stifle creative architectural design, since new contemporary buildings should be designed for their own time while being in sync with the scale and rhythmic pattern of surrounding buildings. Two buildings could still be distinctly different yet seamlessly interrelated by using, for example, the pitched roof style of a building or group of buildings to ensure continuity of the residential architectural character while also maintaining proportional scale and mass. The arrangement of facade protrusions and recesses with porches and entryways, wall offsets and recesses, and use of columns, porticos, overhangs, projections, and arches can also help ensure compatibility between buildings, as illustrated in Figure C-23.

Building Setbacks

New buildings in the historic Center should be set back the same distance as the majority of the existing buildings. To retain the pedestrian-oriented Center, compatibly scaled buildings following existing setback lines will reinforce the existing character of the Center. Out-of-scale buildings, set either too close or too far off the street edge, should be discouraged, as illustrated in Figure C-24.

Building setbacks from streets should be uniform, wherever possible. Such uniformity in the streetscape facade or street wall adds to pedestrian comfort by enclosing and defining the space and provides a sense of continuity to the streetscape. New buildings should be constructed to a "build-to" line to provide such continuity. Preferably such buildings should be set back at least five to 10 feet from streets or sidewalks, where present, to accommodate building foundation plantings. The build-to line in the historic Center should be established based on the existing setback distance most prevalent in the area. As an alternative to a strict build-to line, new buildings may be set back based on a "build-within" range, or a distance that equals the average setback distance of the existing buildings adjacent on each side. Another alternative is to construct a strong architectural feature, such as an ornate fence or stone wall, at the build-to line, with the building itself set somewhat further back.

Typically very long gaps in the street wall should be avoided; however, such gaps are acceptable where properties abut the Glacial Drumlin Trail in order to appreciate the presence of this important amenity and complementary open space, which plays an integral part of the Center. When parking lots are located in side yards or when side yards between buildings are too wide, elements of a street wall at the build-to line should be provided, either in the form of landscaping, such as hedges or tree lines, or in the form of structural elements, such as low, ornate open-picket or wrought-iron fences and/or fieldstone or native Lannon stone walls, which would provide a "seam" to reinforce and continue the overall uniform setback.

Building Scale and Mass

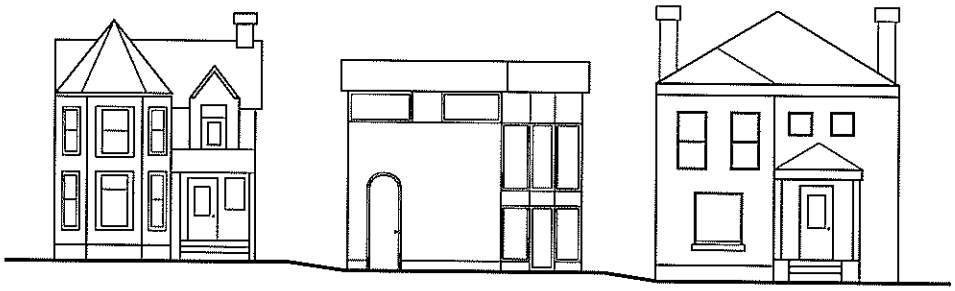
The relative proportion, or scale, of a building in relation to its neighboring buildings, to the pedestrian or observer, and to the surrounding area should be considered when new buildings are built or when existing buildings are remodeled or altered. Visual elements that contribute to this overall scale and mass in the Historic Village Center include the visual rhythm and proportion of the elements of the building facades, the architectural detailing, the visual directional emphasis of the streetscape (which can either be horizontal or vertical), the symmetrical or asymmetrical character of the building facades, the mass of individual buildings, the size and configuration of open spaces, the type and color of building materials, the building height and width, and the presence and absence of landscaping materials and street furniture. These elements of scale and mass should be considered whenever possible to create an attractive environment. Figure C-25 illustrates the relationship of scale

Figure C-23

COMPATIBILITY OF WINDOWS AND ENTRANCES

DESIRABLE

UNDESIRABLE



Source: American Planning Association and SEWRPC.

and mass between buildings. To retain the human-scale setting, most buildings in the Historic Village Center should be one to two stories in height, but no higher than three stories.

Streetscape Roof Style/Shape

Building roofs visually define the upper edge or height of the building and streetscape. The visual continuity of this architectural design element should be maintained and building development or redevelopment with dramatically opposing roof shapes and height should be discouraged, as illustrated in Figure C-26. Buildings should consist primarily of peaked roofs with a pitch of at least 6/12 (i.e. one foot of vertical distance to two feet of horizontal distance). Overall, buildings in the historic Center, including those for businesses, should continue to use gable or hip-style roofs and/or provide a varied pitched roofline by using, for example, a gable roof with dormers or multiple pediments that also contain gables. Flat roofs should be avoided.

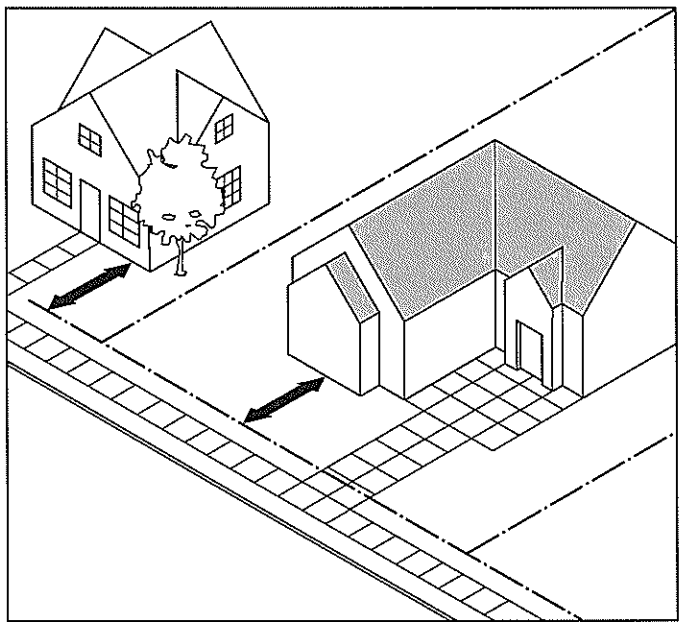
Architectural Details

Architectural details and building ornamentation (if present) often represent historic elements of architecture and are important components of the overall character of the Historic Village Center. The distinctiveness of older buildings is directly associated with their architectural details. Unsympathetic design changes to a building can destroy both the architectural character of the building and the overall streetscape. Significant architectural details, where they exist, should not be lost in rehabilitation or "modernization" of existing buildings. Remodeling efforts should attempt to retain any rich architectural details. However, efforts to transform an existing building into an earlier period through the use of details that were not originally used on the structure do not usually retain the

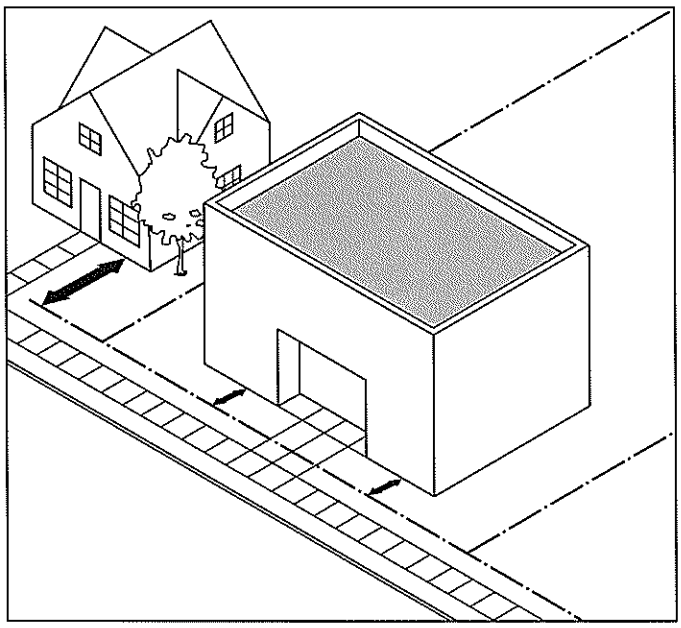
Figure C-24

BUILDING SETBACKS

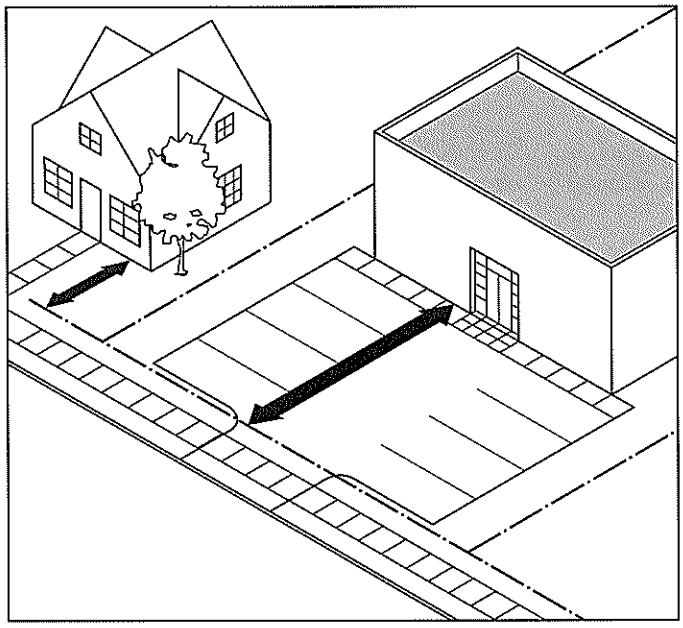
DESIRABLE



UNDESIRABLE - - SETBACK IS TOO CLOSE



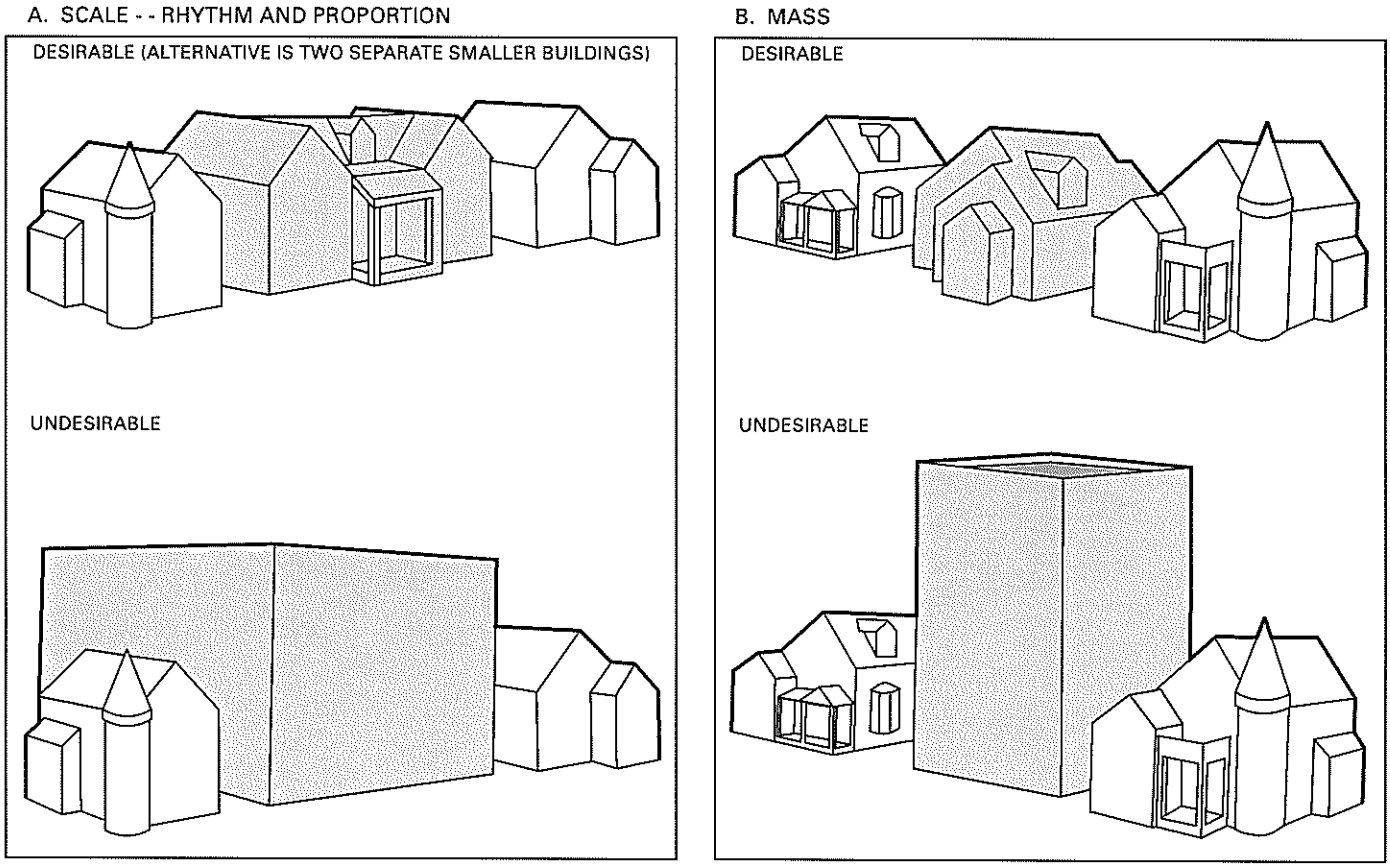
UNDESIRABLE - - SETBACK IS TOO FAR



Source: Planning and Design Institute, Inc. and SEWRPC.

Figure C-25

URBAN SCALE AND MASS OF BUILDINGS



Source: American Planning Association and SEWRPC.

original architectural integrity of the building. Consequently, if there is an introduction of modern detail or a mixture of old and new parts on the building, the overall visual character of the building should not be destroyed, as illustrated in Figure C-27.

Selection of Materials and Colors

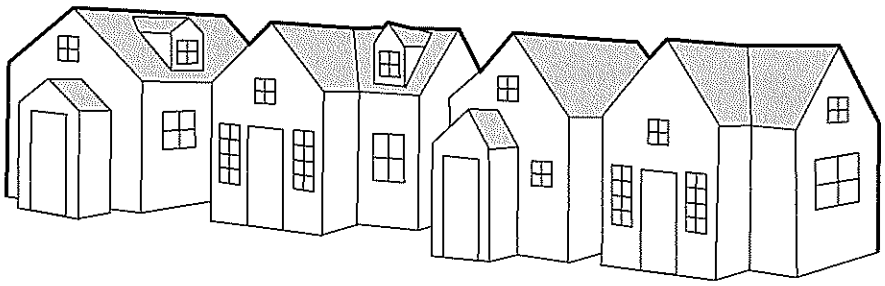
Selection of materials and colors for both architectural and landscape design should be based upon material and color unity, the atmosphere and character desired, the materials and colors composition of surrounding buildings and landscape features, the compatibility of the materials and colors used with other materials and colors, and climatic considerations. Since the primary exterior materials used in the Village Center are natural wood, stone, and brick masonry, deviation from these materials should be minimized. By using these predominant materials, the overall building facade texture of the Historic Village Center would be maintained. Overly conflicting material use and relationships should be avoided. Also, concrete block buildings, as illustrated in Figure C-24, and smooth metal-faced buildings that are devoid of any architectural prominence should be discouraged.

The selection of colors for privately-owned buildings is generally an individual decision. However, the use of colors does have a significant effect upon the overall appearance of the historic Center. Colors which overwhelmingly clash with the overall visual character of the Center should be avoided. Colors should be selected to complement the colors of surrounding buildings and such natural building materials as wood, stone, and masonry. Entire color schemes should consist of mostly neutral or earth tone colors such as reds, browns, or

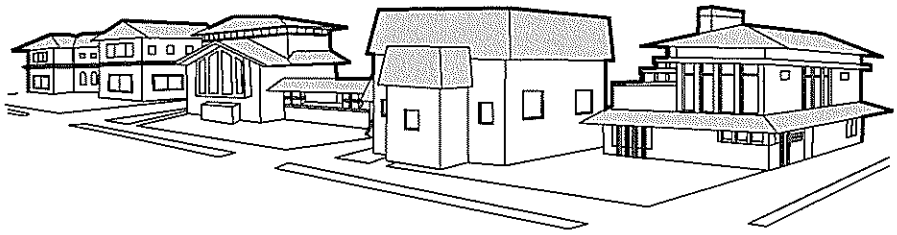
Figure C-26

ROOF STYLE/SHAPE OF BUILDINGS

DESIRABLE



UNDESIRABLE



Source: SEWRPC.

beiges while trims may be highlighted with complementary accenting colors without overbearing the integrity of the facade. Overall, buildings should consist of a predominantly neutral color tone to avoid overdoing the color scheme with an overwhelming mix of different colors in order to retain a coherent connecting color theme in the Center, but yet allow limited highlighting colors for some variation in the color scheme to help avoid excessive drabness or monotony.

All proposed material and color schemes for individual buildings should be reviewed on their individual merit based upon desired building design, building materials, longevity of the color choices, statement in relation to overall theme, compatibility with the character and color of adjacent structures, and unity with existing structures in the immediate vicinity.

Accessory Buildings and Structures

Accessory buildings and structures should be compatible with principal structures in terms of building facade character, roof shapes, materials, colors, and architectural details, particularly if these accessory structures are visible from public areas, including the Glacial Drumlin Trail.

Landscaping

General

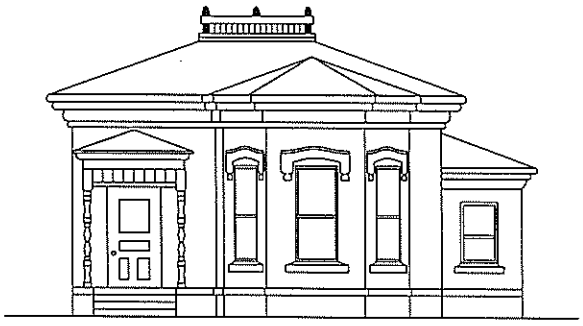
Landscape designs for sites in the Center should be integrated with overall site and building plans, not merely as an afterthought, and should be consistent with a desired design theme for the Center. Ultimately, landscaping provides functional and aesthetic characteristics that would improve the character of the Historic Village Center as well as the community. Landscape plantings can provide shade and shelter, act as noise buffers and visual screens, assist in channeling pedestrian and vehicular traffic, reduce air pollutants, act as wind breaks, and

decrease the intensity of solar radiation. The design guidelines outlined earlier for landscaping should be used along with the recommendations below in addressing areas with site constraints such as limited space. Overall, the landscape design theme for the Historic Village Center could, for example, achieve a small village setting with a country flavor comprised of plantings, such as native trees and shrubs mixed with ornamental grasses and flowers set in naturally shaped meandering plant beds, and the use of mostly natural wood or stone materials for creating low fieldstone and native Lannon stone walls supplemented with compatible wood rail fences, open picket fences with trellises, or decorative wrought-iron fences.

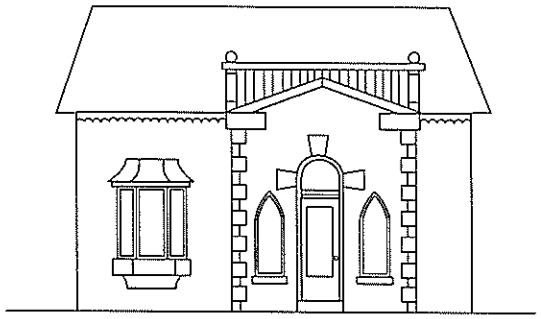
Figure C-27

RESTORATION AND REPLICATION OF AN EXISTING HISTORIC BUILDING

DESIRABLE



UNDESIRABLE



Source: American Planning Association and SEWRPC.

Street Trees

Deciduous canopy trees should be provided wherever possible. For those areas with limited space between the building and face of curb or edge of street, columnar or small to medium scale street trees could be provided and spaced closer together than canopy-type trees.

Parking Lot Screening

The visual effects of parking lots should be screened from public streets and the Glacial Drumlin Trail, as illustrated earlier in Figure C-6, and abutting residential areas to soften the visual impact in accordance with the guidelines established earlier; however, site area may be limited. In such cases, an open picket fence, an ornate wrought-iron fence with limestone pillars, or a low decorative wall, possibly constructed of materials similar to the principal building, may be provided with shrubs, flowers, or ornamental grasses provided on at least the finished side of the screening structure that would complement the architectural theme of the building. Such screening from public streets may also function as a significant contributing element of a street wall as discussed earlier. Where parking lots abut residential uses, a mostly solid screen of at least six feet in height should be provided.

Buffers

Landscaped buffer yards should be provided between dissimilar uses, as illustrated earlier in Figure C-18. If space is limited, a solid ornate fence or wall should be provided, preferably with landscaping such as shrubs or ornamental grasses provided on at least the finished side of the screening structure; otherwise, the structure could be placed on the property line. Some provision of buffering between incompatible uses is preferable to none at all.

Building Foundation Landscaping

Ideally, building foundation landscaping should be provided along the elevation of buildings facing public streets, parking lots, and the Glacial Drumlin Trail, as shown earlier in Figure C-19. However, space may be limited in the central part of the historic Center. As alternatives, large plant containers, flower boxes under window sills, or low elevated planter beds, which may be constructed of the same materials as the principal building, should be provided along the building elevation to define entrances and add to the aesthetic appeal of the building facades.

Site Furniture and Amenities

Site furniture and amenities should be provided to serve pedestrians and bicyclists while evoking a traditional, small "country" Village character. Such features include lighting standards, traffic standards, bollards, planters,

benches, fences, trellises, gates, handrails, drinking fountains, water fountains, sculptures, clocks, play equipment, bike stands, garbage receptacles, kiosks, and signage. The design and arrangement of these items should contribute to the overall design theme of the Center, serving aesthetic and utilitarian functions, while adding a sense of design continuity and human scale.

Above-Ground Utility Wires, Mechanical Equipment, and Dumpsters
In the Historic Village Center, the relocation of above-ground utilities either underground or, if not practical, to the rear of properties, should be considered since these wires detract from the overall appearance of the Center and typically add to visual clutter. Dumpsters and mechanical equipment should be placed in an unobtrusive location and/or screened from view, as illustrated earlier in Figure C-22. If space is limited, dumpsters or mechanical equipment should be located in the rear, or, at a minimum, the structural screening shown in Figure C-2 should be provided. Rooftop and at-grade mechanical equipment should be effectively shielded from public view.

Yards
Front, rear, and side yards should be kept clean and proper garbage receptacles used. Other unsightly features should be covered from view in a creative fashion. Entrances for the general public should provide a walkway which exhibits safe and attractive features, including landscape plantings when practicable. Where a building site or yard is exposed to public view, consideration should be given to its urban features and to its impact on the character of the surrounding area.

Street Lighting and Traffic Poles
Lighting in the Historic Village Centers should relate to human scale. Primary lighting luminaires within the Historic Village Center should be mounted on uniquely designed posts at a height of generally 10 to 15 feet. This height allows the lighting to relate to both human and building scale. Lighting fixtures or luminaires should be placed so that the light overlaps at a height of about seven feet. Posts and luminaires designed with colorful banners or hanging planters should reflect the overall character desired for the Historic Village Center, such as a historic, modern, or even a mixed historic-style type of lighting with a more contemporary flair. The overall illumination should be about 2.0 footcandles. If distinctive style streetlights are not practical, the traditional style of tall streetlights could be made more attractive by using colors, such as black or green, instead of the bare metal color. As another alternative, the pole could be colored black or green while the extended arm with the illumination head could remain silver. Due to interest in conserving energy and the night sky for star gazing, street lights should be shielded to efficiently project lighting downwards without reducing the sense of security and the desired degree of illumination. Distinct design style of the streetlights should also be emulated in bollards and poles for street signs and traffic signs and signals.

Signs
The sign design guidelines outlined earlier under the basic urban and site planning design guidelines should be used, including the provision of graphically unique street signs and color "icon" or symbolic directional signs for wayfinding purposes. Any signs in the Historic Village Center should be placed in visually pleasing and logical places of building facades including areas that are void of openings, projections, and architectural details. Since the design concept for the historic Center is to retain a residential character, any proposed business signs should preferably be tastefully mounted flush on the building and should not extend above the first story. If projecting signs are proposed, they should not extend more than four feet beyond a building facade nor above the first story. Any proposed low monument signs should not exceed a height of about four to six feet and should be constructed of preferably natural stone or wood-carved material set on an attractive supporting base surrounded by landscaping. Tall pole and pylon signs and standard "franchise" and "brand name" signs should be avoided.

Appendix D

INVASIVE PLANTS

The following list of invasive plants should not be used for landscaping. If these plants are already located in existing natural areas, it is recommended that they be removed to protect native vegetation.

Common Name(s)	Botanical Name(s)
TREES	
Black Locust	*Robinia pseudoacacia*
White Poplar	*Populus alba*
SHRUBS	
European Barberry	*Berberis vulgaris*
Common Buckthorn	*Rhamnus cathartica*
Glossy,Columnar, or Tall-Hedge Buckthorn	*Rhamnus frangula*
Most Honeysuckles	*Lonicera (L.) tatarica, L. x bella, L. morrowii,* and *L. maackii*
Autumn Olive	*Elaeagnus umbellata*
Russian Olive	*Elaeagnus angustifolia*
Multiflora Rose	*Rosa multiflora*
VINES	
Porcelain Berry	*Ampelopsis brevipedunculata*
Japanese Honeysuckle	*Lonicera japonica*
FORBS	
Spotted Knapweed	*Centaurea maculosa*
Japanese Knotweed	*Polygonum cuspidatum*
Purple Loosestrife	*Lythrum salicaria*
Garlic Mustard	*Alliaria petiolata*
Dame's Rocket	*Hesperis matronalis*
Leafy Spurge	*Euphorbia esula*
Canada Thistle	*Cirsium arvense*
Musk or Nodding Thistle	*Carduus nutans*
Crown Vetch	*Coronilla varia*
Black Swallow-Wort	*Vincetoxicum nigrum*
GRASSES	
Reed Canary Grass	*Phalaris arundinacea*
Quack Grass	*Elytrigia repens* or *Agropyron repens*

Source: SEWRPC.

Appendix E

A PLANT SELECTION GUIDE FOR LANDSCAPE PLANTING IN THE VILLAGE OF WALES

The following tables list plants recommended for landscape use within the Village of Wales. The plant selection guide is divided into seven tables consisting of deciduous trees, evergreen trees, deciduous shrubs, evergreen shrubs, ornamental grasses, groundcovers, and vines. A summary of plant characteristics follows each name and the first five tables further group the plants by height. The tables are not exhaustive, but include plants that are usually available within southeastern Wisconsin. Prior to selecting plants for a specific location, various site characteristics should be carefully analyzed including soil type, drainage conditions, air temperature, growing space, sunlight exposure, wind exposure, salt exposure, utility lines, traffic visibility, snow compaction, and other site conditions that will significantly affect the growth of plants.

As a general guide, trees and shrubs used for buffering or screening purposes should consist of the following minimum sizes:

1. Deciduous shade trees and ornamental trees should contain a caliper size of at least 2.0 inches and 1.5 inches in diameter, respectively, which are measured at least six inches above the root system or ground level.

2. Evergreen trees should be at least five to six feet in height;

3. Deciduous and evergreen shrubs used to screen parking areas from public streets should be at least 18 to 24 inches in height and grow to obtain an overall screening height of at least three feet above the parking surface after three years. A minimum plant size of five to six feet in height is suggested for buffering between incompatible land uses. Smaller plants could be used if combined with other landscape measures, such as planters or berms, provided the desired degree of buffering or screening is achieved.

Deciduous trees selected for installation along streets should contain a caliper size of at least two inches in diameter, measured 4.5 feet (about chest height) above ground level. The over-use of one type of tree should be avoided. For a more complete guide to street tree planting, refer to the sources referenced at the end of this appendix.

In the table, the nonitalicized first name is the common name(s) for a plant, and the second name in parentheses is its botanical name. Abbreviations used in the following tables include:

cvs. – cultivars;
f. – forma;
spp. – species;
ssp. – subspecies;
var. – variety.

A. DECIDUOUS TREES

TALL TREES -40-100 feet in height; plant at least 40-50 feet apart; columnar species, 20-30 feet apart	
•*Ash, Green	(*Fraxinus pennsylvanica* and cvs.)
•*Ash, White	(*Fraxinus americana* and cvs.)
*Beech, American	(*Fagus grandifolia*)
Beech, European	(*Fagus sylvatica*)
Catalpa, Northern	(*Catalpa speciosa*)
*Cherry, Black	(*Prunus serotina*)
*Coffeetree, Kentucky	(*Gymnocladus dioica*)
•Elm, Hybrid	(*Ulmus x* 'New Horizon' and cvs.)
•Ginkgo; Maidenhair Tree Male Only	(*Ginkgo biloba* and cvs.)
•*Hackberry, Common	(*Celtis occidentalis* and cvs.)
*Honeylocust, Common	(*Gleditsia triacanthos*)
•Honeylocust, Thornless Common	(*Gleditsia triacanthos* var. *inermis* and cvs.)
Horsechestnut	(*Aesculus hippocastanum* and cvs.)
Larch, European	(*Larix decidua*)
Larch, Japanese	(*Larix kaempferi*)
*Linden, American; Basswood	(*Tilia americana* and cvs.)
•Linden, Littleleaf	(*Tilia cordata* and cvs.)
•Linden, Silver	(*Tilia tomentosa*)
•Maple, Norway	(*Acer platanoides* and cvs.)
•*Maple, Red	(*Acer rubrum* and cvs.)
*Maple, Silver	(*Acer saccharinum* and cvs.)
•*Maple, Sugar	(*Acer saccharum* and cvs.)
*Oak, Bur	(*Quercus macrocarpa*)
•Oak, Pin	(*Quercus palustris*)
•*Oak, Red	(*Quercus rubra*)
*Oak, Swamp White	(*Quercus bicolor*)
*Oak, White	(*Quercus alba*)
Tuliptree; Tulip Magnolia	(*Liriodendron tulipfera*)
•Zelkova, Japanese	(*Zelkova serrata* and cvs.)
MEDIUM TREES -- 30-40 feet in height; plant at least 20-35 feet apart, depending on spread	
*Birch, River	(*Betula nigra* and cvs.)
Birch, Whitespire	(*Betula platyphylla* var. *japonica* 'Whitespire')
Buckeye, Ohio	(*Aesculus glabra*)
•Cherry, Sargent	(*Prunus sargentii* and cvs.)
Chokecherry, Amur	(*Prunus maackii*)
Corktree, Macho Amur	(*Phellodendron amurense* 'Macho')
•Elm, Lacebark; Chinese Elm	(*Ulmus parvifolia*)
•Horsechestnut, Ruby Red	(*Aesculus x carnea* 'Briotii')
•Pear, Callery	(*Pyrus calleryana* and cvs.)
Katsuratree	(*Cercidiphyllum japonicum*)
Willow, Golden Weeping	(*Salix x sepulcralis* 'Tristis')
LOW TREES -- 15-30 feet in height; plant at least 15-30 feet apart, depending on spread	
*Chokecherry	(*Prunus virginiana* and cvs.)
Crabapples, Ornamental; Flowering Crabapples	(*Malus* spp. and cvs.)
*Dogwood, Pagoda	(*Cornus alternifolia*)
*Hawthorn, Cockspur	(*Crataegus crus-galli* and cvs.)
*Hawthorn, Dotted	(*Crataegus punctata*)
*Hawthorn, Downy	(*Crataegus mollis*)
Hawthorn, Washington	(*Crataegus phaenopyrum*)
Hawthorn, Winter King	(*Crataegus x viridis* 'Winter King')
•*Hophornbeam; Ironwood	(*Ostrya virginiana*)
•*Hornbeam, American; Ironwood; Musclewood	(*Carpinus caroliniana*)
•Lilac, Japanese Tree	(*Syringa reticulata* and cvs.)
Magnolia, Loebner	(*Magnolia x loebneri* and cvs.)
Magnolia, Saucer	(*Magnolia x soulangiana*)
Magnolia, Star	(*Magnolia stellata*)
Maple, Amur	(*Acer ginnala* and cvs.)
•Maple, Globe Norway	(*Acer platanoides* 'Globosum')
*Mountainash, American	(*Sorbus americana*
Mountainash, European	(*Sorbus aucuparia* and cvs.)
Mountainash, Korean	(*Sorbus alnifolia*)
*Mountainash, Showy	(*Sorbus decora*)
*Plum, American	(*Prunus americana*)
Plum, Newport	(*Prunus x* 'Newport')
Redbud, Eastern	(*Cercis canadensis*)
*Serviceberry, Allegany	(*Amelanchier laevis* and cvs.)
*Serviceberry, Apple	(*Amelanchier x grandiflor* and cvs.)
*Serviceberry, Downy; Juneberry	(*Amelanchier arborea*)
Willow, Contorted; Corkscrew Willow	(*Salix matsudana* 'Tortuosa')
Willow, Laurel	(*Salix pentandra*)

•Street tree (also see Appendix F). Only male Ginkgo trees should be selected for this purpose.

*Wisconsin native.

B. EVERGREEN TREES

TALL TREES -- 60-80 feet in height; plant at least 25-35 feet apart, depending on spread		
Fir, Douglas	(*Pseudotsuga menziesii*)	
Fir, White	(*Abies concolor*)	
*Hemlock, Canadian	(*Tsuga canadensis*)	
*Pine, Eastern White	(*Pinus strobus*)	
Spruce, Colorado Blue	(*Picea pungens* var. *glauca*)	
Spruce, Norway	(*Picea abies*)	
MEDIUM TREES -- 40-60 feet in height; plant at least 25-35 feet apart, depending on spread		
Pine, Austrian	(*Pinus nigra*)	
*Pine, Jack	(*Pinus banksiana*)	
*Pine, Red	(*Pinus resinosa*)	
Pine, Scots; Scotch Pine	(*Pinus sylvestris*)	
Pine, Swiss Stone	(*Pinus cembra*)	
Spruce, Serbian	(*Picea omorika*)	
*Spruce, White	(*Picea glauca*)	
LOW TREES -- 15-40 feet in height; plant at least 10-25 feet apart, depending on spread		
*Arborvitae, American; White Cedar	(*Thuja occidentalis* and certain cvs.)	
Juniper, Iowa Chinese	(*Juniperus chinensis* 'Iowa')	
Juniper, Mountbatten	(*Juniperus chinensis* 'Mountbatten')	
*Redcedar, Eastern	(*Juniperus virginiana* and cvs.)	
Spruce, Black Hills	(*Picea glauca* var. *densata*)	
Yew, Upright Japanese	(*Taxus cuspidata* 'Capitata')	

* Wisconsin native.

TALL SHRUBS -- 8-10 feet in height, sometimes 15 feet in height; plant at least 4-6 feet apart

Beautybush	(*Kolkwitzia amabilis*)
*Bladdernut, American	(*Staphylea trifolia*)
Buckeye, Bottlebrush	(*Aesculus parviflora*)
Buffaloberry	(*Shepherdia argentea*)
Cherry, Manchu; Nanking Cherry	(*Prunus tomentosa*)
Cotoneaster, Manyflowered	(*Cotoneaster multiflorus*)
Dogwood, Corneliancherry	(*Cornus mas* and cvs.)
*Dogwood, Gray	(*Cornus racemosa*)
*Dogwood, Pagoda	(*Cornus alternifolia*)
*Dogwood, Redosier	(*Cornus sericea* and cvs.)
Euonymus, European; Spindletree	(*Euonymus europaea*)
Euonymus, Winged; Burning Bush	(*Euonymus alata*)
Forsythia, Meadowlark	(*Forsythia x* 'Meadowlark')
Fringetree	(*Chionanthus virginicus*)
Hydrangea, Peegee	(*Hydrangea paniculata* 'Grandiflora')
Lilac, Chinese	(*Syringa x chinensis*)
Lilac, Common	(*Syringa vulgaris* and cvs.)
Lilacs, Hyacinth	(*Syringa x hyacinthiflora* and cvs.)
Lilac, Japanese Tree	(*Syringa reticulata*)
Lilac, Preston	(*Syringa x prestoniae* and cvs.)
Magnolia, Star	(*Magnolia stellata*)
Maple, Dwarf Amur	(*Acer ginnala nana*)
*Ninebark, Common	(*Physocarpus opulifolius*)
Peashrub, Siberian	(*Caragana arborescens*)
Pearlbush	(*Exochorda racemosa*)
Plum, Double Flowering; Flowering Plum; Rose-Tree-of-China	(*Prunus triloba*)
Privet, Amur	(*Ligustrum amurense*)
Privet, Cheyenne	(*Ligustrum vulgare* 'Cheyenne')
*Serviceberry (See Low Deciduous Trees)	(*Amelanchier* spp.)
Serviceberry, Shadblow	(*Amelanchier canadensis*)
Smoketree; Smokebush	(*Cotinus coggygria* and cvs.)
*Sumac, Smooth	(*Rhus glabra*)
*Sumac, Staghorn	(*Rhus typhina* and cvs.)
Tamarisk	(*Tamarix ramosissima* and cvs.)
*Viburnum, American Cranberrybush	(*Viburnum trilobum*)
Viburnum, Arrowwood	(*Viburnum dentatum*)
*Viburnum, Blackhaw	(*Viburnum prunifolium*)
Viburnum, Burkwood	(*Viburnum x burkwoodii*)
Viburnum, European Cranberrybush	(*Viburnum opulus*)
*Viburnum, Nannyberry	(*Viburnum lentago*)
Viburnum, Sargent	(*Viburnum sargentii*)
Viburnum, Wayfaringtree	(*Viburnum lantana* and cvs.)
*Wahoo, Eastern	(*Euonymus atropurpurea*)
Willow, Goat; French Pussy Willow	(*Salix caprea*)
*Witchhazel, Common	(*Hamamelis virginiana*)

MEDIUM SHRUBS -- 5-8 feet in height; plant at least 3-4 feet apart

Bayberry	(*Myrica pennsylvanica*)
Cherry, Purpleleaf Sand	(*Prunus x cistena*)
Chokeberry, Red	(*Aronia arbutifolia*)
Cotoneaster, Hedge	(*Cotoneaster lucidus*)
Cotoneaster, Peking	(*Cotoneaster acutifolius*)
Cotoneaster, Spreading	(*Cotoneaster divaricatus*)
Crabapple, Jewelberry	(*Malus* 'Jewelberry')
Crabapple, Sargent	(*Malus sargentii* and cvs.)
Dogwood, Creamedge; Variegated Dogwood	(*Cornus alba* 'Argenteo-marginata')
Dogwood, Isanti Red	(*Cornus sericea* 'Isanti')
Euonymus, Dwarf Winged; Dwarf Burning Bush	(*Euonymus alata* 'Compacta')
Forsythia, Sunrise	(*Forsythia x* 'Sunrise')
*Hazelnut; American Filbert	(*Corylus americana*)
Jetbead	(*Rhodotypos scandens*)
Lilac, Miss Kim	(*Syringa patula* 'Miss Kim')
Lilac, Meyer; Palibin Lilac	(*Syringa meyeri* 'Palibin')
Lilac, Persian	(*Syringa persica*)
Mockorange, Glacier	(*Philadelphus x virginalis* 'Glacier')
Mockorange, Lemoine	(*Philadelphus x lemoine* and cvs.)
Privet, Golden Vicary	(*Ligustrum x vicaryi*)
Privet, Regel's Border	(*Ligustrum obtusifolium* var. *regelianum*)
Rose, Father Hugo	(*Rose hugonis*)
*Rose, Prairie; Climbing Rose	(*Rosa setigera*)
Rose, Rugosa	(*Rosa rugosa* and cvs.)
Spirea, Bridalwreath	(*Spiraea prunifolia*)
Spirea, Ural False	(*Sorbaria sorbifolia*)
Spirea, Vanhoutte	(*Spiraea x vanhouttei*)
Viburnum, Koreanspice	(*Viburnum carlesii*)
*Viburnum, Witherod	(*Viburnum cassinoides*)
Weigela, Old-Fashioned; Cardinal Bush	(*Weigela florida*)
Weigela, Red Prince	(*Weigela x* 'Red Prince')
Willow, Dwarf Arctic	(*Salix purpurea* 'Gracilis')
*Winterberry	(*Ilex verticillata*)

C. DECIDUOUS SHRUBS (continued)

LOW SHRUBS -- 2-5 feet in height; plant at least 2½-3 feet apart			
Barberry, Japanese	(*Berberis thunbergii* and cvs.)	Oregongrape, Mayhan	(*Mahonia aquifolium* 'Mayhan')
Barberry, Korean	(*Berberis koreana*)	Privet, Lodense	(*Ligustrum vulgare* (Lodense')
Box or Boxwood, Green Velvet	(*Buxus x* 'Green Velvet')	Rose, Virginia	(*Rosa virginiana*)
Box or Boxwood, Wintergreen Korean Littleleaf	(*Buxus sinica* var. *insularis* 'Wintergreen')	St. Johnswort, Kalm's	(*Hypericum kalmianum*)
*Chokeberry, Glossy Black	(*Aronia melanocarpa* var. *elata*)	*Serviceberry, Running	(*Amelanchier stolonifera*)
*Cinquefoil, Bush; Potentilla	(*Potentilla fruticosa* and cvs.)	*Snowberry	(*Symphoricarpos albus*)
Cotoneaster, Cranberry	(*Cotoneaster apiculatus*)	Spirea, Billiard	(*Spiraea x billiardii*)
Cotoneaster, Rock	(*Cotoneaster horizontalis*)	Spirea, Bumalda	(*Spiraea x bumalda* and cvs.)
Coralberry, Indiancurrant; Buckbrush	(*Symphoricarpos orbiculatus*)	Spirea, Grefsheim	(*Spiraea x cinerea* 'Grefsheim')
Currant, Alpine	(*Ribes alpinum*)	Spirea, Japanese	(*Spiraea japonica* and cvs.)
Daphne, Burkwood	(*Daphne x burkwoodii* and cvs.)	Spirea, Japanese White	(*Spiraea albiflora*)
Deutzia, Compact Lemoine	(*Deutzia x lemoinei* 'Compacta')	Spirea, Snowmound	(*Spiraea nipponica* 'Snowmound')
Floweringalmond, Pink Dwarf	(*Prunus glandulosa* 'Sinensis')	Stephanandra, Cutleaf	(*Stephanandra incisa* 'Crispa')
Floweringquince, Texas Scarlet	(*Chaenomeles x superba* 'Texas Scarlet')	*Sumac, Fragrant	(*Rhus aromatica* and cvs.)
Forsythia, Bronx	(*Forsythia viridissima* 'Bronxensis')	Viburnum, Compact European Cranberrybush	(*Viburnum opulus* 'Compactum')
Honeysuckle, Clavey's Dwarf	(*Lonicera x xylosteoides* 'Clavey's Dwarf')	Viburnum, Dwarf European Cranberrybush	(*Viburnum opulus* 'Nanum')
*Honeysuckle, Dwarf Bush	(*Diervilla lonicera*)	Viburnum, Dwarf Koreanspice	(*Viburnum carlesii* 'Compacta')
Hydrangea, Smooth	(*Hydrangea arborescens* and cvs.)	Willow, Silver Creeping	(*Salix repens* var.*nitida*)
Mockorange, Golden	(*Philadelphus coronarius* 'Aureus')	Winterberry, Red Sprite	(*Ilex verticillata* 'Red Sprite')
Ninebark, Dwarf Common	(*Physocarpus opulifolis* 'Nanus')		

*Wisconsin native.

D. EVERGREEN SHRUBS

TALL SHRUBS -- 8-10 feet in height, sometimes 15 feet, plant at least 6-8 feet apart, depending on spread			
Arborvitae, American	(*Thuja occidentalis* and certain cvs.)	Juniper, Hetz Blue	(*Juniperus chinensis* 'Hetzii')
Arborvitae, Ware	(*Thuja occidentalis* 'Wareana')	Juniper, Rocky Mountain; Colorado Red Cedar	(*Juniperus scopulorum* and cvs.)
Juniper, Chinese	(*Juniperus chinensis* and certain cvs.)		
MEDIUM SHRUBS -- 2-8 feet in height; plant at least 4-6 feet apart, depending on spread			
Arborvitae	(*Thuja occidentalis* and certain cvs.)	Juniper, Pfitzer	(*Juniperus chinensis* 'Pfitzeriana')
Arborvitae, Globe	(*Thuja occidentalis* 'Globosa')	Pine, Mugo	(*Pinus mugo* var. *mugo*)
Juniper, Blue Star Singleseed	(*Juniperus squamata* 'Bluestar')	Spruce, Dwarf Alberta	(*Picea glauca* 'Conica')
Juniper Chinese	(*Juniperus chinensis* and certain cvs.)	Spruce, Nest	(*Picea abies* 'Nidiformis')
Juniper, Fishtail	(*Juniperus squamata* 'Meyeri')	Yew, Anglojapanese	(*Taxus x media* and cvs.)
*Juniper, Oldfield Common	(*Juniperus communis* var. *depressa*)	Yew, Dwarf Japanese	(*Taxus cuspidata* 'Nana')
LOW SHRUBS -- 6-24 inches in height; plant at least 4-6 feet apart depending on spread			
Juniper, Chinese	(*Juniperus chinensis* and certain cvs.)	Juniper, Kallay's Compact Pfitzer	(*Juniperus chinensis* 'Pfitzeriana Kallay's Compacta')
Juniper, Common	(*Juniperus communis* and cvs.)	Juniper, Sargent	(*Juniperus chinensis* var. *sargentii*)
*Juniper, Creeping	(*Juniperus horizontalis* and cvs.)	Juniper, Savin	(*Juniperus sabina* and cvs.)
Juniper, Japanese Garden	(*Juniperus chinensis* var. *procumbens*)		

*Wisconsin native.

E. ORNAMENTAL GRASSES

TALL GRASSES -- 6-8 feet in height			
*Bluestem, Big	(*Andropogon gerardii* 'Sentinel')	Porcupine Grass	(*Miscanthus sinensis* 'Strictus')
Dot Grass, Little	(*Miscanthus sinensis* 'Puenktchen')	Ravenna Grass	(*Saccharum ravennae; Erianthus ravennae*)
Feather Grass, Silver	(*Miscanthus sinensis* 'Silberfeder')	Reed Grass, Feather	(*Calamogrostis* x *acutiflora* 'Karl Foerster')
*Indian Grass	(*Sorghastrum nutans* and cvs.)	Silver Grass, Purple; Flame Grass	(*Miscanthus sinensis* 'Purpurascens')
Maiden Grass; Japanese Silver Grass	(*Miscanthus sinensis* and certain cvs.)	Switch Grasses; Panic Grass	(*Panicum virgatum* and certain cvs.)
Moor Grass, Tall Purple	(*Molinia caerulea* ssp. *arundinacea* and cvs.)	Zebra Grass	(*Miscanthus sinensis* 'Zebrinus')
MEDIUM GRASSES -- 3-5 feet in height			
*Bluestem, Little	(*Andropogon scorparium* and cvs.)	Reed Grass, Korean Feather; Fall Blooming Reed Grass	(*Calamagrostis brachytricha*)
Fountain Grass	(*Pennisetum alopecuroides* and certain cvs.)	Reed Grass, Variegated Feather	(*Calamagrostis arundinacea* 'Overdam')
Frost Grass; Siberian Graybeard	(*Spodiopogon sibiricus*)	Rye Grass, Wild	(*Leymus arenarius*)
Maiden Grass, Little Fountain	(*Miscanthus sinensis* ' Kleine Fontane')	Switch Grass, Red	(*Panicum virgatum* and certain cvs.)
Oats, Northern Sea; Wild Oats; Wood Oats	(*Chasmanthium latifolium*)		
LOW GRASSES -- 8-24 inches in height			
Blood Grass, Japanese	(*Imperata cylindrical* var. *koenigii* and cvs.)	Oat Grass, Blue	(*Helictotrichon sempervirens* and cvs.)
Dropseed, Prairie	(*Sporobolus heterolepis* 'Wisconsin')	Oat Grass, Striped Bulbous; Tuber Oat Grass	(*Arrhenatherum elatius* ssp. *bulbosum* 'Variegatum')
Fescue, Blue	(*Festuca glauca* and cvs.)	Quaking Grass, Perennial	(*Briza media*)
Fountain Grass	(*Pennisetum alopedcuroides* and certain cvs.)		
Hair Grass, Tufted; Tussock Grass	(*Deschampsia cespitosea* and cvs.)	Sedge, Creeping Broad-Leaved	(*Carex siderosticha* 'Variegata')
Hakone Grass, Golden Variegated	(*Hakonechloa macra* 'Aureola')	Sedge, Japanese; Kan Suge	(*Carex morrowii* 'Variegata')
June Grass; Hair Grass	(*Koeleria macrantha; Koeleria cristata*)	Sedge, Tufted	(*Carex elata* 'Bowles Golden')
Mondo Grass, Black	(*Ophiopogon planiscapus* 'Niger')	Woodrush, Greater	(*Luzula sylvatica* 'Marginata')
Moor Grass, Purple	(*Molinia caerulea* and cvs.)		

*Wisconsin native.

F. GROUNDCOVER

GROUNDCOVER			
Bugleweed	(*Ajuga reptans* and cvs.)	Lily, Plantain; Funkia	(*Hosta* and cvs.)
Cinquefoil, Cushion	(*Potentilla verna nana*)	Lily-of-the-Valley	(*Convallaria majalis*)
Cotoneaster, Cranberry	(*Cotoneaster apiculatus*)	Pachysandra, Japanese; Japanese Spurge	(*Pachysandra terminalis* and cvs.)
Daylily	(*Hemerocallis* and cvs.)	Periwinkle; Myrtle	(*Vinca minor* and cvs.)
Deadnettle, Spotted	(*Lamium maculatum* and cvs.)	Phlox, Moss	(*Phlox subulata* and cvs.)
Euonymus, Purpleleaf	(*Euonymus fortunei* 'Colorata')	Stephanandra, Cutleaf	(*Stephanandra incisa* 'Crispa')
Fleeceflower, Low Japanese	(*Polygonum cuspidatum* var. *compactum*)	Stonecrop; Sedum	(*Sedum* spp.)
Goutweed, Silveredge; Snow-on-the-Mountain; Bishop's Weed	(*Aegopodium podagraria* 'Variegatum')	Strawberry, Barren	(*Waldsteinia ternata*)
Hat, Bishop's	(*Epimedium spp.*)	Sumac, Gro-Low Fragrant	(*Rhus aromatica* 'Gro-Low')
*Honeysuckle, Dwarf Bush	(*Diervilla lonicera*)	Trefoil, Bird's-foot	(*Lotus corniculatus*)
Ivy, Bulgarian	(*Hedera helix* 'Bulgaria')	*Wildginger, Canada	(*Asarum canadense*)
Juniper (See Low Evergreen Shrubs)	(*Juniperus* spp. and cvs.)	Woodruff, Sweet	(*Galium odoratum*)

*Wisconsin native.

G. VINES

VINES			
Akebia, Fiveleaf	(*Akebia quinata*)	Grape	(*Vitis* spp. and cvs.)
*Bittersweet, American	(*Celastrus scandens*)	Honeysuckle, Dropmore Scarlet	(*Lonicera x brownii* 'Dropmore Scarlet')
Bittersweet, Oriental	(*Celastrus orbiculatus*)	Honeysuckle, Everblooming; Goldflame Honeysuckle	(*Lonicera heckrottii*)
Clematis	(*Clematis* and cvs.)	Hydrangea, Climbing	(*Hydrangea anomala* spp. *petiolaris*)
Clematis, Sweet Autumn	(*Clematis maximowicziana*)	Ivy, Boston; Japanese Creeper	(*Parthenocissus tricuspidata* and cvs.)
Creeper, Engelmann Virginia; Woodbine	(*Parthenocissus quinquefolia* 'Engelmannii')	Kiwi, Arctic Beauty; Kolomikta Actinidia	(*Actinidia kolomikta*)
Dutchmanspipe	(*Aristolochia durior*)	Trumpetcreeper; Trumpetvine	(*Campsis radicans*)
Euonymus, Bigleaf Wintercreeper	(*Euonymus fortunei* var. *vegeta* and cvs.)	Wisteria, Kentucky	(*Wisteria macrostachya*)
Fleecevine, Silver; Silver Lace Vine	(*Polygonum aubertii*)		

*Wisconsin native.

Source: *E. R. Hasselkus,* A Guide to Selecting Landscape Plants for Wisconsin, *University of Wisconsin-Extension, Madison, Wisconsin, 1991; Michael A. Dirr,* Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses, *4th Ed., Stipes Publishing Company, Champaign, Illinois, 1990; Richard D. Schein, Ph. D.,* Street Trees: A Manual for Municipalities, *Treeworks, State College, Pennsylvania, 1993; Henry D. Gerhold, Willet N. Wandell, and Norman L. Lacasse,* Street Tree Factsheets, *Pennsylvania State University, University Park, Pennsylvania, 1993; Henry D. Gerhold, Norman L. Lacasse, and Willet N. Wandell,* Compatible Tree Factsheets for Electric Lines and Restricted Spaces, Including Evergreens for Screens, 2nd Ed., *Pennsylvania State University, University Park, Pennsylvania, 2001; M. Hockenberry Meyer, D. B. White, and H. Pellett,* Ornamental Grasses for Cold Climates, *North Central Regional Extension Publication 573, University of Minnesota-Extension, St. Paul, Minnesota, 1998; Rick Drake,* The Color Encyclopedia of Ornamental Grasses, *Timber Press, Inc., Portland, Oregon, 1999; and SEWRPC.*

Appendix F

POTENTIAL STREET TREES

Common Name(s)	Botanical Name
TALL TREES– 40-100 feet in height; plant at least 40-50 feet apart; columnar species, 20-30 feet apart	
*Ash, Green (G.A.) Aerial G.A. Marshall Seedless G.A. Patmore G.A. Summit G.A.	*Fraxinus pennsylvanica* 'Aerial' 'Marshall Seedless' 'Patmore' 'Summit''
*Ash, White (W.A.) Autumn Applause W.A. Autumn Purple W.A. Champaign County W.A. Rosehill W.A. Skyline W.A.	*Fraxinus americana* 'Autumn Applause' 'Autumn Purple' 'Champaign County' 'Rosehill' 'Skyline'
Elm, Hybrid (H.E.) Regal H.E.	*Ulmus x* 'New Horizon' 'Regal'
Ginkgo (G.); Maidenhair Tree (Male only) Autumn Gold G. Lakeview G. Sentry G.	*Ginkgo biloba* 'Autumn Gold' 'Lakeview' 'Fastigiata'
*Hackberry, Common (C.H.) Prairie Pride C.H.	*Celtis occidentalis* 'Prairie Pride'
Honeylocust, Thornless Common (T.C.H.) Imperial T.C.H. Majestic T.C.H. Moraine T.C.H. Shademaster T.C.H. Skyline T.C.H. Sunburst T.C.H.	*Gleditsia triacanthos* var. *inermis* 'Imperial' 'Majestic' 'Moraine' 'Shademaster' 'Skyline' 'Sunburst'
Horsechestnut, Bauman	*Aesculus hippocastanum* 'Baumanni'
Linden, Redmond	*Tilia americana* 'Redmond'
Linden, Littleleaf (L.L.) Chancellor L.L. Glenleven L.L. Greenspire L.L	*Tilia cordata* 'Chancellor' 'Glenleven' 'Greenspire'
Linden, Silver	*Tilia tomentosa*
Maple, Norway (N.M.) Cleveland N.M. Columnar N.M. Crimson King N.M. Deborah N.M. Emerald Lustre N.M.; Pond N.M. Emerald Queen N.M. Harlequin N.M.; Silver Variegated N.M. Greenlace N.M. Royal Red N.M. Schwedler N.M. Summershade N.M. Superform N.M.	*Acer platanoides* 'Cleveland' 'Columnare' 'Crimson King' 'Deborah' 'Emerald Lustre' 'Emerald Queen' 'Drummondii' 'Greenlace' 'Royal Red' 'Schwedler' 'Summershade' 'Superform'
*Maple, Red (R.M.) Autumn Flame R.M. Bowhall R.M. Red Sunset R.M. Schlesinger R.M.	*Acer rubrum* 'Autumn Flame' 'Bowhall' 'Red Sunset' 'Schlesingeri'
*Maple, Sugar (S.M.) Black Maple Green Mountain S.M. Legacy S.M.	*Acer saccharum* ssp. *nigrum* 'Green Mountain' 'Legacy'
Oak, Pin	*Quercus palustris*
*Oak, Red	*Quercus rubra*
Zelkova, Japanese (J.Z.) Green Vase J.Z. Village Green J.Z.	*Zelkova serrata* 'Green Vase' 'Village Green'

Common Name(s)	Botanical Name
MEDIUM TREES– 30-40 feet in height; plant at least 20-35 feet apart, depending on spread	
Cherry, Sargent (S.C.) Columnar S.C.	*Prunus sargentii* 'Columnaris'
Elm, Lacebark; Chinese Elm	*Ulmus parvifolia*
Horsechestnut, Ruby Red	*Aesculus x carnea* 'Briotii'
Pear, Callery (C.P.) Aristocrat C.P. Autumn Blaze C.P. Bradford C.P. Chanticleer C.P.; Cleveland Select C.P. Redspire C.P. Select C.P.	*Pyrus calleryana* 'Aristocrat' 'Autumn Blaze' 'Bradford' 'Chanticleer' 'Red Spire' 'Select'
LOW TREES–15-30 feet in height; plant at least 15-30 feet apart, depending on spread	
Hawthorn, Thornless Cockspur	*Crataegus crus-galli* var. *inermis*
*Hophornbeam; Ironwood	*Ostrya virginiana*
*Hornbeam, American; Blue Beech; Ironwood; Musclewood	*Carpinus caroliniana*
Lilac, Japanese Tree (J.T.L.) Ivory Silk J.T.L. Summer Snow J. T. L.	*Syringa reticulate* 'Ivory Silk' 'Summer Snow'
Maple, Globe Norway	*Acer platanoides* 'Globosum'

* Wisconsin native.

NOTE: The abbreviations ssp. and var. represent subspecies and variety, respectively.

Source: *E. R. Hasselkus,* A Guide to Selecting Landscape Plants for Wisconsin, *University of Wisconsin-Extension, Madison, Wisconsin, 1991; Michael A. Dirr,* Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses, 4th Ed., *Stipes Publishing Company, Champaign, Illinois, 1990; Richard D. Schein, Ph.D.,* Street Trees: A Manual for Municipalities, *Treeworks, State College, Pennsylvania, 1993; Henry D. Gerhold, Willet N. Wandell, and Norman L. Lacasse,* Street Tree Factsheets, *Pennsylvania State University, University Park, Pennsylvania, 1993; Henry D. Gerhold, Norman L. Lacasse, and Willet N. Wandell,* Compatible Tree Factsheets for Electric Lines and Restricted Spaces, Including Evergreens for Screens, *2nd Ed., Pennsylvania State University, University Park, Pennsylvania, 2001; and SEWRPC.*

Appendix G

VILLAGE PLAN COMMISSION RESOLUTION FOR ADOPTING THE VILLAGE OF WALES MASTER PLAN

WHEREAS, the Village of Wales, pursuant to the provisions of Section 62.23 of the Wisconsin Statutes, has created a Village Plan Commission; and

WHEREAS, it is the duty and function of the Village Plan Commission, pursuant to Section 62.23(2) of the Wisconsin Statutes, to make and adopt a master plan for the physical development of the Village of Wales; and

WHEREAS, the Village of Wales requested the Southeastern Wisconsin Regional Planning Commission (SEWRPC) to help prepare a master plan for the Village, which plan includes:

1. The collection, compilation, processing, and analyses of various types of population, housing, economic, natural resource, historic resource, recreation and open space, land use, transportation, utilities, community facilities, and other information pertaining to the Village;
2. A forecast of growth and change;
3. Statements of planning objectives, principles, standards, and related design guidelines, and results of a community survey;
4. A master plan;
5. Recommended activities to implement the plan; and

WHEREAS, the aforementioned forecasts, inventories, analyses, objectives, master plan, and implementation recommendations are set forth in a published report entitled SEWRPC Community Assistance Planning Report No. 256, A Master Plan for the Village of Wales: 2020, Waukesha County, Wisconsin; and

WHEREAS, the Village of Wales Plan Commission has held public meetings to acquaint residents, landowners, and local government officials of the Village and neighboring communities with the plan recommendations, including a public informational meeting held on the 29th day of September, 2003, and a public hearing held on the 29th day of October, 2003; and

WHEREAS, the Village Plan Commission has carefully considered the plan over an extended period of time, including public statements and requests during the planning process, and has proceeded to incorporate, where deemed appropriate, changes to the recommended master plan; and

WHEREAS, the Village Plan Commission considers the plan to be a necessary guide to the future development of the Village and environs.

NOW, THEREFORE, BE IT RESOLVED, that pursuant to Section 62.23(3)(b) of the Wisconsin Statutes, the Village of Wales Plan Commission hereby adopts SEWRPC Community Assistance Planning Report No. 256 and the attendant recommended master plan as a guide for the future development of the Village of Wales and its environs; and

BE IT FURTHER RESOLVED, that the Secretary of the Village of Wales Plan Commission transmit a certified copy of this resolution, after recording the action on the adopted plan, to the Board of Trustees of the Village of Wales, Waukesha County, and to the Southeastern Wisconsin Regional Planning Commission.

PASSED and ADOPTED the 29th day of October, 2003, by the Village of Wales Plan Commission.

Alan Theis, Chairperson
Village of Wales Plan Commission

ATTEST:

Pauline M. Wigderson, Secretary
Village of Wales Plan Commission

Appendix H

VILLAGE BOARD RESOLUTION FOR ADOPTING THE VILLAGE OF WALES MASTER PLAN

WHEREAS, the Village of Wales, pursuant to the provisions of Section 62.23 of the Wisconsin Statutes, has created a Village Plan Commission; and

WHEREAS, the Village Plan Commission has prepared, with the assistance of the Southeastern Wisconsin Regional Planning Commission (SEWRPC), a master plan for the physical development of the Village of Wales, said plan embodied in SEWRPC Community Assistance Planning Report No. 256, A Master Plan for the Village of Wales: 2020, Waukesha County, Wisconsin; and

WHEREAS, the Village Plan Commission on the 29th day of October, 2003, adopted SEWRPC Community Assistance Planning Report No. 256 and the attendant recommended master plan, and has submitted a certified copy of that resolution to the Board of Trustees of the Village of Wales; and

WHEREAS, the Board of Trustees of the Village of Wales concurs with the Village Plan Commission and the objectives and recommendations set forth in SEWRPC Community Assistance Planning Report No. 256.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Trustees of the Village of Wales hereby adopts SEWRPC Community Assistance Planning Report No. 256 and the attendant recommended master plan as a guide for the future development of the Village of Wales and its environs.

PASSED and ADOPTED the 3rd day of November, 2003, by the Board of Trustees of the Village of Wales.

By: Jeffery A. Flaws
Jeffery A. Flaws, President
Village of Wales

ATTEST:

Gail E. Colon-Powell
Gail E. Colon-Powell, Clerk
Village of Wales

Appendix I

SUGGESTED SITE PLAN AND ARCHITECTURAL REVIEW GUIDELINES

The compatibility of proposed development with the character of a community is a critical public concern. A review committee, established in accordance with Section 62.23(7) of the *Wisconsin Statutes*, may review proposed site plans and building designs to avoid development that may have an adverse impact on the character of a community. The development or redevelopment of sites and buildings should be consistent with the general intents and purposes of promoting the public health, safety, and general welfare; maintaining the attractive appearance of the community; and promoting development and redevelopment of buildings and lands consistent with the adopted community comprehensive plan, or element thereof. Site plan and architectural review guidelines are set forth herein for the specific purpose of promoting an attractive community, compatible development, and stability of property values. These guidelines may be formalized in the form of a zoning ordinance or may be used as voluntary guidelines. If a community wishes to require the submittal and review of detailed development plans for all intensive uses by the Plan Commission, the following provision should be added to each basic zoning district that permits intensive uses, such as multi-family residential, commercial, industrial, governmental, institutional, and recreational uses. A single- or two-family home proposed on an individual lot would not require Plan Commission review.

> "**Plans and Specifications to be Submitted to Plan Commission**
> To encourage a [type of proposed principal uses permitted in the basic zoning district such as multi-family residential, business, or manufacturing] environment that is compatible with the community character, zoning permits for uses allowed in the [name of zoning district] should not be issued without review and approval by the Village Plan Commission. Said review and approval should be concerned with, but not limited to, the general layout, building plans, traffic generation and circulation, driveway locations, parking, loading and unloading, landscaping, signage, and open space utilization in accordance with [zoning section number which requires site plan and architectural review]."

Development Plan Data

Proper development plan data should be submitted to the Village for review and approval. In addition to stormwater management plans and erosion and sedimentation control plans, the following development plan data should be submitted where applicable with all plan review applications:

1. Site plan drawn to a recognized engineering scale.
2. Name of project.
3. Owner's and/or developer's name and address.
4. Architect's and/or engineer's name and address.
5. Date of plan submittal.
6. Scale of drawing, north arrow, and site size information (area in square feet or acres).
7. Existing and proposed topography shown at contour intervals of two feet or less. Topography should extend 50 feet onto adjacent property or to the building on the adjacent lot, whichever is greater.
8. The characteristics of soils related to contemplated specific uses.
9. Total number and location of parking spaces.

10. All building and yard setback lines.

11. Where applicable, both the 100 year recurrence interval floodplain and the floodway; environmental corridors and isolated natural resource areas; and wetland areas.

12. The type, size, and location of all existing and proposed structures with all building dimensions shown.

13. The height of all existing and proposed buildings and other structures.

14. Existing and proposed street names.

15. Existing and proposed public rights-of-way and widths.

16. Existing and general location of proposed sanitary sewers, water mains, storm sewers, and other drainage facilities and features.

17. Proposed location and type of all signs to be placed on the site.

18. The location and type of all outdoor lighting.

19. Existing isolated, individual trees and the boundary of woodlands.

20. Location, extent, and type of proposed plantings. This information may be provided on a combined site/landscape plan or a separate landscape plan.

21. Location of pedestrian sidewalks and walkways, and bicycle lanes or paths.

22. A graphic outline of any development staging.

23. Architectural plans, elevations, and perspective drawings and sketches illustrating the design and character of proposed structures.

24. Other data as required by the Plan Commission.

Review Guidelines

The following guidelines or principles should be established as review criteria to be applied to all new structures and uses and to changes or additions to existing structures and uses.

1. The proposed use(s) should conform to the uses permitted in the applicable zoning district.

2. The dimensional arrangement of buildings and structures should conform to the required area, yard, setback, and height restrictions of the zoning ordinance.

3. The relative proportion of the scale and mass of a building to neighboring existing buildings, to pedestrians or observers, or to other existing buildings should be maintained or enhanced when new buildings are built or when existing buildings are remodeled or altered.

4. The visual continuity of roof shapes, rooflines, and their contributing elements (e.g. parapet walls, coping, and cornices) should be maintained in building development or redevelopment.

5. No building should be permitted where the design or exterior appearance will be of such unorthodox or abnormal character in relation to its surroundings as to be unsightly or offensive to generally accepted taste and community standards.

6. No building should be permitted where the design or exterior appearance will be so similar with those adjoining as to create excessive monotony or drabness.

7. No building should be permitted where any exposed facade will be constructed or faced with finished material which is not aesthetically compatible with the facades of surrounding buildings or presents an unattractive appearance to the public and to surroundings properties.

8. All sides of multi-family residential, commercial, industrial, governmental, and institutional buildings should be finished with an aesthetically pleasing material such as stone, brick, wood, ornate masonry material, or decorative glass panels, except where the building style requires a different material. Attractive aluminum or vinyl siding which has the appearance of wood siding, a "brushed" surface, or other compatible attractive material may be allowed by the Village. No plain concrete-block buildings or smooth metal-faced buildings, except those with an attractive finished surface mentioned above, should be allowed.

9. Since the selection of building colors has a significant aesthetic and visual impact upon the public and neighboring properties, colors should be selected to be in general harmony with existing neighborhood buildings. The use of bright colors should be limited and used only as an accent.

10. Accessory buildings should be built with materials compatible with those of the principal building on the same site.

11. No overhead door or loading dock for commercial, manufacturing, institutional, or park buildings should face a public street. The Plan Commission may permit overhead doors and docks to face a public street when it has made a finding that there is no feasible alternative location for such doors or docks and, insofar as is practicable, such doors and docks facing public streets are screened.

12. Outside storage areas for inventory, materials, equipment, supplies, scrap, and other materials utilized in the day-to-day operation of the principal use should be hard-surfaced with either concrete or asphalt and screened from public view with appropriate vegetation, fencing, or walls of a material compatible with the principal structure and the surrounding area. The Plan Commission may permit the outdoor display of products or merchandise when it makes a finding that such a display is essential to a business or industrial use, such as a landscape-nursery or car-sales business, and attractive periphery landscaping is provided.

13. Mechanical equipment, such as heating, air conditioning, and ventilating equipment, at grade-level and on rooftops, should be screened from public view or located in a manner that is unobtrusive.

14. No building or sign should be permitted to be sited on the property in a manner which would unnecessarily destroy or substantially damage the natural beauty of the area, particularly insofar as it would adversely affect values incidental to ownership of land in that area, or which would unnecessarily have an adverse effect on the beauty and general enjoyment of existing buildings on adjoining properties.

15. No building or use should be permitted that would have a negative impact on the maintenance of safe and healthful conditions in the Village.

16. Building and uses should maintain existing topography, drainage patterns, and vegetative cover insofar as is practical to prevent indiscriminate or excessive earth moving or clearing of property, disfiguration of natural land forms, and disruption of natural drainage patterns.

17. Buildings and uses should provide for safe traffic circulation and safe driveway locations.

18. Buildings and uses should provide adequate parking and loading areas.

19. Appropriate landscaped buffers should be provided between dissimilar uses.

20. Appropriate erosion control measures should be utilized in all new development.

21. Buildings and uses should be provided with adequate public services as approved by the appropriate utility.

22. Refuse and recycling areas should be screened by completely enclosing such areas with a wall or fence of a material compatible with the principal structure and surrounding area. Except at the gate, the wall or fence should be surrounded with a landscape bed at least five feet wide consisting of plants.

23. No buildings should impair the enjoyment of historic attractions and areas of significant historic interest.

24. Buildings on premises which have historic significance should be identified by a plaque to be provided by the Village and should be encouraged to be maintained or restored, insofar as is practicable, in a manner which will protect its historic significance in accordance with the standards promulgated by the U.S. Department of the Interior for historic preservation projects.

25. Development and redevelopment should be consistent with the public goals, objectives, principles, standards, policies, and design guidelines set forth in the adopted Village comprehensive plan, or element thereof, including those related to the Wales Historic Village Center.

26. Buildings and uses should make appropriate use of open spaces. The Zoning Administrator or Plan Commission may require appropriate landscaping and planting screens. A landscaping maintenance program, together with appropriate assurances, should be submitted.

27. Other principles deemed appropriate in the Village of Wales or in the vicinity of the project may be imposed by the Plan Commission.

Appendix J

DEVELOPMENT TYPES COMPATIBLE WITH ENVIRONMENTAL CORRIDORS

Component Natural Resource and Related Features within Environmental Corridors[a]	Development Type															
	Transportation and Utility Facilities (see General Development Guidelines below)				Recreational Facilities (see General Development Guidelines below)											Rural-Density Single-Family Residential Development (see General Development Guidelines below)
	Streets and Highways	Utility Lines and Related Facilities	Engineered Stormwater Management Facilities	Engineered Flood Control Facilities[b]	Trails[c]	Picnic Areas	Family Camping[d]	Swimming Beaches	Boat Access	Ski Hills	Golf	Playfields	Hard-Surface Courts	Parking	Buildings	
Lakes, Rivers, and Streams	--[e]	--[f,g]	--	--[h]	--[i]	--	--	X	X	--	--	--	--	--	--	--
Shoreline	X	X	X	X	X	X	--	X	X	--	X	--	--	X	--	--
Floodplain	--[j]	X	X	X	X	X	--	X	X	--	X	X	--	X	X	--
Wetland[k]	--[j]	X	X	X	X[l]	--	--	--	X	--	--	--	--	--	--	--
Wet Soils	X	X	X	X	X	--	--	X	X	--	X	--	--	X	--	--
Woodland	X	X	X	--	X	X	X	--	X	X	X	X	X	X	X	X
Wildlife Habitat	X	X	X	--	X	X	X	--	X	X	X	X	X	X	X	X
Steep Slope	X	X	--	--	--[m]	--	--	--	--	X[n]	X	--	--	--	--	--
Prairie	--	--[g]	--	--	--[m]	--	--	--	--	--	--	--	--	--	--	--
Park	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--
Historic Site	--	--[g]	--	--	--[m]	--	--	--	--	--	--	--	--	--	--	--
Scenic Viewpoint	X	X	--	--	X	X	X	--	X	X	X	--	--	X	X	X
Scientific or Natural Area Site	--	--[g]	--	--	--[m]	--	--	--	--	--	--	--	--	--	--	--

NOTE: An "X" indicates that facility development may be permitted within the specified natural resource feature. In those portions of the environmental corridors having more than one of the listed natural resource features, the natural resource feature with the most restrictive development limitation should take precedence.

GENERAL DEVELOPMENT GUIDELINES

- Transportation and Utility Facilities: All transportation and utility facilities proposed to be located within the important natural resources should be evaluated on a case-by-case basis to consider alternative locations for such facilities. If it is determined that such facilities should be located within natural resources, development activities should be sensitive to these resources, and, to the extent possible following construction, such resources should be restored to preconstruction conditions. The above table presents development guidelines for major transportation and utility facilities. These guidelines may be extended to other similar facilities not specifically listed in the table.

- Recreational Facilities: In general, no more than 20 percent of the total environmental corridor area should be developed for recreational facilities. Furthermore, no more than 20 percent of the environmental corridor area consisting of upland wildlife habitat and woodlands should be developed for recreational facilities. It is recognized, however, that in certain cases these percentages may be exceeded in efforts to accommodate needed public recreational and game and fish management facilities within appropriate natural settings. The above table presents development guidelines for major recreational facilities. These guidelines may be extended to other similar facilities not specifically listed in the table.

- Single-Family Residential Development: Limited single-family residential development within the environmental corridor may occur in various forms ranging from development on large rural lots to clustered single-family development. The maximum number of housing units accommodated at a proposed development site within the environmental corridor should be limited to the number determined by dividing the total corridor area within the site less the area covered by surface water and wetlands by five. Individual lots should contain a minimum of approximately one acre of land determined to be developable for each housing unit—with developable lands being defined to include upland wildlife habitat and woodlands, but to exclude areas of steep slope. Single-family development on existing lots of record should be permitted as provided for under county or local zoning at the time of adoption of the land use plan.

Footnotes

[a]*The natural resource and related features are defined as follows:*

Lakes, Rivers, and Streams: Includes all lakes greater than five acres in area and all perennial and intermittent streams as shown on U.S. Geological Survey quadrangle maps.
Shoreline: Includes a band 50 feet in depth along both sides of intermittent streams; a band 75 feet in depth along both sides of perennial streams; a band 75 feet in depth around lakes; and a band 200 feet in depth along the Lake Michigan shoreline.
Floodplain: Includes areas, excluding stream channels and lake beds, subject to inundation by the 100-year recurrence interval flood event.
Wetlands: Includes areas one acre or more in size in which the water table is at, near, or above the land surface and which are characterized by both hydric soils and by the growth of sedges, cattails, and other wetland vegetation.
Wet Soils: Includes areas covered by wet, poorly drained, and organic soils.
Woodlands: Includes areas one acre or more in size having 17 or more deciduous trees per acre with at least a 50 percent canopy cover as well as coniferous tree plantations and reforestation projects; excludes lowland woodlands, such as tamarack swamps, which are classified as wetlands.
Wildlife Habitat: Includes areas devoted to natural open uses of a size and with a vegetative cover capable of supporting a balanced diversity of wildlife.
Steep Slope: Includes areas with land slopes of 12 percent or greater.
Prairies: Includes open, generally treeless areas which are dominated by native grasses.
Park: Includes public and private park and open space sites.
Historic Site: Includes sites listed on the National Register of Historic Places.
Scenic Viewpoint: Includes vantage points form which a diversity of natural features such as surface waters, wetlands, woodlands, and agricultural lands can be observed.
Scientific and Natural Area Sites: Includes tracts of land and water so little modified by human activity that they contain intact native plant and animal communities believed to be representative of the presettlement landscape.

[b]*Includes such improvements as stream channel modifications and such facilities as dams.*

[c]*Includes trails for such activities as hiking, bicycling, cross-country skiing, nature study, and horseback riding, and excludes all motorized trail activities. It should be recognized that trails for motorized activities such as snowmobiling that are located outside the environmental corridors may of necessity have to cross environmental corridor lands. Proposals for such crossings should be evaluated on a case-by-case basis, and if it is determined that they are necessary, such trail crossings should be designed to ensure minimum disturbance of the natural resources.*

[d]*Includes areas intended to accommodate camping in tents, trailers, or recreational vehicles which remain at the site for short periods of time—typically ranging from an overnight to a two-week stay.*

[e]*It should be recognized that certain transportation facilities such as bridges may be constructed over such resources.*

[f]*It should be recognized that utility facilities such as public sanitary sewers may be located in or under such resources.*

[g]*It should be recognized that electric power transmission lines and similar lines may be suspended over such resources.*

[h]*It should be recognized that certain flood control facilities such as dams and channel modifications may need to be provided in such resources to reduce or eliminate flood damage to existing development.*

[i]*It should be recognized that bridges for trail facilities may be constructed over such resources.*

[j]*It should be recognized that streets and highways may cross such resources. Where this occurs there should be no net loss of flood storage capacity or wetlands.*

[k]*Any development affecting wetlands must adhere to water quality standards for wetlands established under Chapter NR 103 of the Wisconsin Administrative Code.*

[l]*Only an appropriately designed boardwalks/trails should be permitted.*

[m]*Only appropriately designed and located hiking and cross-country ski trails should be permitted.*

[n]*Only an appropriately designed, vegetated, and maintained ski hill should be permitted.*

Source: SEWRPC.