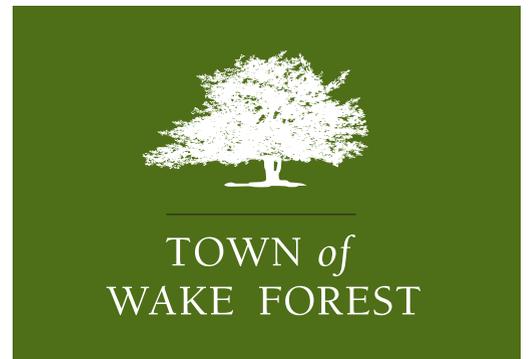
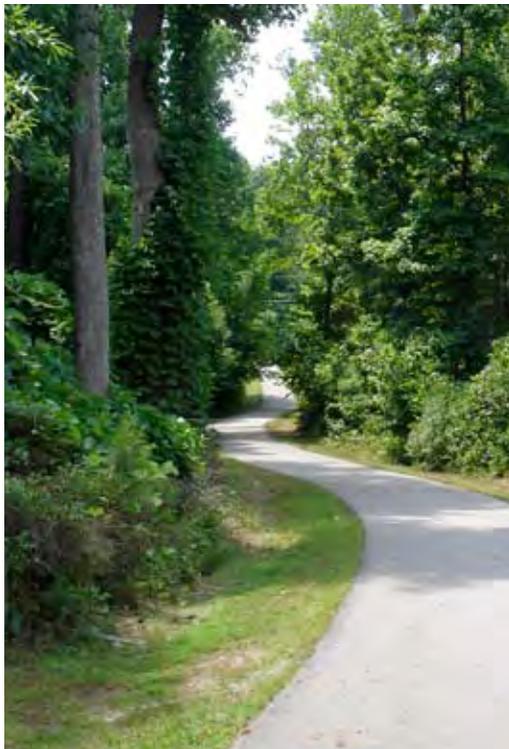




Community Plan

Vision Statements
and Policies
*Including the
Growth Strategy Map*



Community Plan

Vision Statements and Policies *Including the Growth Strategy Map*

ADOPTED SEPTEMBER 15, 2009

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TOWN of
WAKE FOREST

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*Communities seldom stand still;
they are continually growing,
changing, and evolving as places of
human interchange and capital investment.*





The Community Plan

Continuing a Tradition of Planning

This Community Plan marks a major new phase of the Town of Wake Forest's planning program—reinvigorated in the late 1980s and continuing to this day. During the rapid growth era of the past quarter century, a number of important community-wide plans, special area plans and development ordinances have been prepared to help manage the town's growth and development. These documents have included plans and ordinances addressing transportation, land use, economic development, parks and recreation, bikeways and pedestrian systems, downtown revitalization, greenways, historic preservation, and highway corridors and streetscapes, to name a few. In recent years, the *Northeast (East End) Neighborhood Plan* and the *Renaissance Plan for the Heart of Wake Forest* have each won special recognition awards for excellence from the North Carolina Chapter of the American Planning Association.

In addition to award-winning planning initiatives, the Town of Wake Forest was one of the very first municipalities in the state to be certified as a *Tree City USA*, a designation that the Town has held continuously for several decades. The Town of Wake Forest has also been designated a *Main Street City*; as such, it is one of a select number of small towns in North Carolina participating in this proactive program to support and improve its downtown area.

Collectively, all of the Town’s plans, ordinances and programs make up a growth management system intended to properly guide quality development. These efforts have combined successfully with a generally enlightened development community to produce new growth of which the Town and its residents can be rightfully pleased.

With the Town’s sustained commitment to good planning, Wake Forest has emerged during the past two decades as a model in the region for successful small town community planning. In particular, Wake Forest has earned recognition for its efforts in historic preservation, downtown revitalization, community appearance, neighborhood improvements, parks and recreation, citizen participation, public-private partnerships, and a number of other community improvement initiatives.

This *Community Plan* is intended to build upon the successful town planning that has been the hallmark of Wake Forest for many years, while adding some of the most current and effective planning principles and methods to the Town’s growth management system.

Need for This Plan

Communities seldom stand still; they are continually growing, changing, and evolving as places of human interchange and capital investment. Wake Forest is no exception. This Community Plan, therefore, addresses a number of pressing issues facing the town that require considerable attention and concerted action. Among these issues are:

- Slowing the growth of traffic congestion on major streets—currently increasing at a pace well in excess of population growth.
- Improving neighborhood areas hampered by poor housing and associated social problems.
- Discouraging leapfrogging, single purpose subdivisions, isolated from services and jobs.
- Encouraging development densities that promote walking and get away from over-reliance on the individual automobile.
- Finding ways to provide for the expansion of walking and biking facilities, and inter and intra-town mass transit services.
- Encouraging downtown area revitalization and reinvestment, while protecting the historic character of development that gives the area its inherent value.
- Expanding currently fragile water supplies in the face of projected continued rapid growth in the region.

- Creating new parks, recreation and open space facilities to keep up with growth-induced demand.
- Ensuring that new commercial development is supportive of the town's natural and historic resources, unique sense of place, and quality of life.

Community Plan Steering Committee

Preparation of this plan involved an informed and active group of citizens, the Wake Forest Community Plan Steering Committee. Appointed by the Town Board, this 11-member committee represented a broad cross section of Wake Forest's people, from several geographic, economic and social perspectives. Through the efforts of the citizens' committee, every policy statement considered for this plan was reviewed and discussed, endorsed, set aside, or amended. In addition, the Plan Steering Committee received considerable support from the staff and consultant to the Town of Wake Forest, and input from the many civic leaders, board members, and citizens who attended work sessions and town meetings held during the planning process.



Community Input Guided Vision and Policy Development

Early in 2007, work began in earnest on the Wake Forest Community Plan. The Steering Committee held a joint kick off meeting with the Town Board of Commissioners and the Town Planning Board. Plans were set in

motion immediately for the three groups to co-host a special town meeting for the plan. In April of that year, over 200 Wake Forest citizens crowded into the Community House building and voiced hundreds of concerns, hopes and ideas for the future of their town. As a result of that first town meeting, a number of priority topics were identified for use in drafting a new Town Vision for Wake Forest. Later, in November of that same year, a second town meeting was held to affirm the results of the first Town meeting, share the new Vision, and to move forward into the policy development stage.

Over the ensuing months, the Community Plan Steering Committee pored over the many growth issues identified by the public. The Committee then developed the Policies and Actions set forth in this plan. The results of the Committee's work are presented in three parts:

- ***Vision Statements and Policies*** (policy document)—the most important part of the plan, setting forth policy statements to guide Town decisions.
- ***The Growth Factors Analysis*** (data document)—a compilation of statistical information that describes population, housing and economic conditions influencing the growth of Wake Forest.
- ***The Action Agenda*** (implementation document)—a listing of many different potential actions that could be undertaken by the Town to help implement the Vision Statements and Policies.

This Community Plan represents an important new benchmark in planning for the future of Wake Forest. The intent of the plan is to create a shared vision for the Town to preserve its natural and cultural heritage and to give appropriate direction for desirable growth and development. The Community Plan presents an opportunity to demonstrate that Wake Forest residents, businesses and elected officials are committed to working together for the best possible future for the community.

Vision Statements, Policies and Actions: What's the Difference?

This *Policy Document* and the *Action Agenda* that supports it, contain three different types of statements, each serving a special purpose:

1. **VISION STATEMENTS describe a future condition** for the Town the way we would like to see it. They are the foundation for Policies and Actions. One of the best ways to evaluate the Policies and Actions is to understand the intent of each Vision Statement and

see whether the Policies and Actions will help make it happen. It is important to remember that the Vision Statements, unlike the Policies and Actions, are written as if it is 15-20 years from now and we are looking back at what came about as a result of the 2008 Wake Forest Community Plan.

2. **POLICIES are officially adopted positions** of Town government with regard to preferred or required courses of action. Their primary purpose is to provide guidance to decisions and actions today. When a policy is applied, it does not go away. Policies can and should be used over and over again in support of the Vision Statements. There are normally several policy statements lending support for each vision statement. While policies may be amended occasionally, such changes should be infrequent to provide for consistent, predictable decision-making over a several year period.
3. **ACTIONS are a to-do-list** of things that could be done in support of the Vision Statements and Policies. Unlike a vision or policy, once an action is completed, it goes away; it gets checked off the list. The Town may consider actions as potential work program items for implementation in subsequent fiscal years. It should not be expected that all or even most implementation items could be completed in the first fiscal year. Priorities must be chosen. Implementation actions should also be updated each year in concert with the Town's work program and budget process. For this reason, the Plan's Action Agenda works best if it is printed under a separate cover.

How to Use the Community Plan Policies

The Policies contained in the Community Plan have been designed for regular use in guiding public decisions at the Town level as well as in providing information for private sector decisions. As officially adopted policies of the Town, they are to be used primarily in managing growth and development and as a foundation for decisions on Town facilities and services. The following paragraphs detail how various parties involved in local decision-making may use the policies set forth in the Community Plan.

As Used by the Town Staff

Reviewing Development Proposals—Town staff should consult the Vision Statements and Policies in reviewing development proposals. Such development proposals would typically include rezoning requests, (see

section entitled *Zoning Amendments and Consistency...*), subdivision reviews, site plan reviews, driveway permits, special use permits, sign permits, and the like. All Policies are given a unique identification number allowing them to be referenced by “chapter and verse” in staff recommendations to Town boards.

Suggesting Changes in Town Services—Town staff should consult the Vision Statements and Policies before making recommendations about changes in Town facilities and services. Recommendations to be presented to the Town Manager or Board of Commissioners should first be evaluated according to their consistency with the adopted policy positions of the Community Plan. All Town department heads should periodically review the Vision Statements and Policies, becoming familiar with their content. This is especially important during preparation of the annual work program and proposed budget request for each department.

As Used by Appointed Boards and Committees

Before their regular meetings, members of appointed boards of the Town should review proposed agenda items in light of the Town’s adopted policies. For example, the Town Planning Board should review development proposals with regard to how well they match up with the Town’s policies on transportation, housing, community appearance, and so forth. The Town Planning Staff should assist the Planning Board by pointing out policies applicable to each agenda item when preparing staff recommendations. Board members should then draw their own conclusions as to the consistency of a particular proposal with the Town’s adopted Community Plan Policies.

As Used by Wake Forest Board of Commissioners

In their authority to rezone properties, approve proposed developments as well as changes in Town facilities and services, the Town Board of Commissioners have the final word on the actions of Wake Forest government. As customary, the Commissioners should take into account and weigh the interpretation of Policy as provided by all interested parties, the Town staff, and advisory boards and committees. Decisions on programs and capital improvement expenditures are also made with greater confidence when they can be evaluated for consistency with the Town’s long range Vision. Over time, a track record of policy interpretation forms a reliable foundation for decision-making.

As Used by Other Local Governments and the State

The Town should put forth an effort to make elected and appointed boards of nearby municipalities, as well as those of Wake and Franklin Counties,

aware of the Community Plan. They should be encouraged to consult the plan when considering plans and projects under their authority. Decisions by municipalities concerning water and sewer extensions, transportation, and land use planning, in particular, should be done, to the extent possible, in concert with the policies of the Town's Community Plan. Similarly, the Town should call the Plan to the attention of State officials, particularly with regard to transportation investments, environmental standards and economic development initiatives under the authority of the State.

As Used by Development Interests

Developers, property owners, builders and others involved in the development community should consult the Vision Statements and Policies when formulating their own development plans. By making their plans consistent with the Town's long range Vision and Policies, the chances of plan approval should increase, thereby saving guesswork, time and money. The quality of the plans drawn up for review may also improve if the developer knows that the effort put into the design is more apt to receive a favorable response.

Key Words Often Used in Policy Statements

As the plan is used over time by the various parties identified above, a consistent decision-making pattern will evolve. Also, users of the plan will find it helpful if they employ a consistent vocabulary when interpreting the meaning of the policy statements. Certain key words are used frequently in policy statements. The glossary below conveys the specific meaning of these key words as used in *Policy Statements for the Wake Forest Community Plan*.

adequate: sufficient to achieve the intended purpose or prevent harm

allow, authorize, permit: official action to let something happen

control: to regulate or direct

discourage: to not favor; to dissuade

encourage: to favor or foster (also see *support*)

may: provides the option, but not required; permissive

preferred: the favored course among alternatives but does not preclude other options

prohibit: not allowed, period; to totally prevent

promote: to proactively encourage, to take positive steps

reasonable: practical, just enough to do the job; not extreme

require: to mandate something

shall: mandatory, not optional; a more formal term for "will"

should: preferred or recommended but not mandatory in all cases

significant: important; determined by quantity or relative impact

support: to foster; may imply financial support

As Used by the General Public

Residents of Wake Forest can and should reference specific Community Plan Vision Statements and Policies, when speaking in favor or in opposition to a particular proposal before the Town Commissioners or other appointed Town boards and committees.

The Vision Statements and Policies of the Wake Forest Community Plan begin on page 30.

Zoning Amendments and Consistency with the Town's Comprehensive Plan

Effective January 1st, 2006, North Carolina General Statute 160A-383 requires that “prior to adopting or rejecting any zoning amendment” each local governing board “shall adopt a statement describing whether its action is consistent with an adopted comprehensive plan and explaining why the board considers the action taken to be reasonable and in the public interest”. For the purposes of this statute, this Community Plan constitutes Wake Forest’s *comprehensive plan*.

This relatively new law requires that the Town Planning Board review of proposed zoning amendments include written comments on the consistency of the proposed amendment with the *comprehensive plan* and any other relevant plans (such as a small area plan, a corridor plan, or a transportation plan) that have been adopted by the Town. Further, the Town Board of Commissioners is also required to adopt a statement on plan consistency before adopting or rejecting any zoning amendment. These written comments are required, but do not limit the Board’s discretionary power to adopt or not adopt zoning amendments.

In other words, the Town Board retains the power to approve a zoning amendment that, on its face, is not consistent with the *comprehensive plan*. At the same time, the Board’s decision to approve an “inconsistent” zoning amendment must not be taken lightly; the Board’s approval must be justified by reasons written into the permanent record as to why a zoning amendment found to be inconsistent nonetheless warrants approval. There may be fundamentally sound reasons why a particular zoning amendment should be approved— reasons that meet the overall intent if not the precise language of particular provisions of the Community Plan.

Amending the Community Plan

Given the official status of the Community Plan as the policy foundation for guiding zoning decisions, as well as a broad range of other decisions of Town government, it is appropriate that some provision be made for amending the plan as necessary. Even so, it is important that the plan's essential elements—the Policies and Growth Strategy Map—should remain substantially unchanged during the plan's tenure. Frequent changes to these elements would undermine the plan's effectiveness in directing a steady course for the Town's growth and development over the long haul. Nevertheless, future developments involving unanticipated conflicts with the plan may warrant amendment of the plan in some instances. The guidelines that follow are intended to provide criteria to determine when an amendment to the Community Plan may be necessary.

1. Conflicts with the plan related to unique situations that come up only occasionally, and that can be justified in the public record, would normally *not* warrant amending the plan.
2. Conflicts with the plan related to situations that come up repeatedly, and that represent good planning, may warrant amending the plan.
3. Conflicts with the plan that arise from new development forms or techniques, and represent good planning, may warrant amending the plan.
4. Conflicts with the plan that arise from new concepts in municipal services or practices, and that better serve the public interest, may warrant amending the plan.
5. Changes to proposed implementation actions associated with various policies do not warrant amending the plan. (In fact, implementation actions are designed to be updated at least annually as an administrative function related to development of the Town's work program.)

Form of Application

Requests for an amendment to the Community Plan must be submitted in writing to the Wake Forest Planning Department. Applicants shall specify the reasons why the proposed amendment is in the public interest. Applications for revisions to the Growth Strategy Map shall include a site map that clearly indicates the area in question. The Town shall be reimbursed for administrative and advertising costs in accordance with the Town's published fee schedule.

Form of Review

All proposed amendments shall be reviewed first by the Town Planning Board (after receiving a staff report) and then forwarded with an advisory recommendation to the Town Board of Commissioners for approval, denial or no action.

Town History and Growth Influences

INTRODUCTION

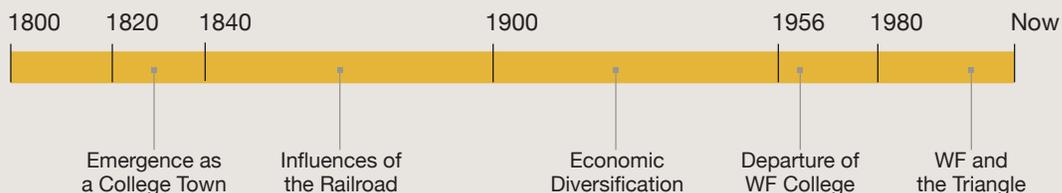
It has been said that to effectively plan for the future of a community, its past must be fully understood. Reasons for a community’s location, direction of growth, and phases of its development history provide important clues as to how future growth can best be directed and managed. In addition to local influences, a town’s growth seldom occurs in a vacuum from external factors. For this reason, it is important to consider prevailing economic conditions, technological advances, and social trends in place during each major growth phase of a community.

For the purpose of this analysis, five major historic eras for Wake Forest are identified in the chart below.

For each historic period, Wake Forest’s growth will be evaluated within the context of what was happening in America at the time. National and regional trends of the day will provide a backdrop for specific changes in the character and shape of Wake Forest. Included will be a summary of key elements of community development and form during each period.

Major Historic Eras for Wake Forest

1. Emergence as a College Town	“Early Focus of the Town”	(1820 to 1840)
2. Influences of the Railroad	“Improved Access & Growth”	(1840 to 1900)
3. Economic Diversification	“Industry, Commerce & Education”	(1900 to 1956)
4. Wake Forest College Departs	“Decline & Recovery”	(1956 to 1980)
5. Wake Forest and the Triangle	“Modern Times & Rapid Growth”	(1980 to Now)



Finally, the section will conclude with an assessment of the challenges associated with automobile-dependent developments, what the Town of Wake Forest is already doing about it, and a series of affirming recommendations, upon which the plan's detailed growth and development policies may be built.

DEVELOPMENT ERAS DESCRIBED

Much of the following description of the history of Wake Forest, particularly for the early years, is taken directly from the excellent summary provided on the Town's website: www.wakeforestnc.gov/Visitors/History.aspx. This narrative is then supplemented with other information to place Wake Forest's growth within the context of what was happening in the United States at the same time. These local and national influences each had a major role in shaping the Wake Forest community that we see today.

Wake Forest's Emergence as a College Town, 1820-1840

Wake Forest was born as a college town; for more than a century the Town and the college grew up together with intertwined histories. The original 1830s campus has changed owners and names, but remains a geographical focus of the community that has grown around it.

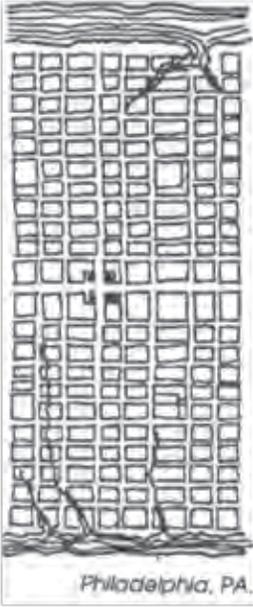
Development began in 1820 when Dr. Calvin Jones from New England bought 615 acres in "Wake Forest Township" from Davis Battle. Dr. Jones may have built a sturdy, two-story frame house in the center of what became Wake Forest College. In 1832 the North Carolina Baptist Convention decided to establish an educational institute. About the same time Dr. Jones had placed an advertisement in the Raleigh papers offering his farm for sale.

The advertisement described the community: "One of the best neighborhoods in the state, the Forest District containing three schools (one classical) and two well constructed and well filled meeting houses for Baptists and Methodists, and has a lawyer and a doctor. The inhabitants, without I believe a single exception, are sober, moral and thriving in their circumstances, and not a few are educated and intelligent."

John Purefoy, a Baptist minister, learned of the property and convinced the North Carolina Baptist Convention to purchase the farm for \$2,000 on which to establish the school it had been planning named the "Wake Forest Institute". It opened to boys in February, 1834.



Southeastern Baptist Theological Seminary



Seventy-two students were enrolled by the end of the first year, so architect John Berry of Hillsborough was hired to enlarge the facility. Berry designed three brick buildings and one classroom structure to replace the Calvin Jones House (which was relocated) and two professors' houses. All three buildings were constructed between 1835 and 1838. The professors' houses, known as the North Brick House and the South Brick House because of their locations, were first occupied by Professors C. W. Skinner and Amos J. Battle. The classroom building burned in 1933 and the North Brick House was demolished in 1936, leaving the South Brick House as the only survivor of the early Berry-designed campus buildings.

With an increasing need for space and money, the College decided to divide the Calvin Jones farm into lots and sell them for \$100 each, with those on the west side of Main Street selling for \$150. Eighty one-acre lots north of the campus and west of the railroad were put on the market in 1839. The central street became known as Faculty Avenue and today constitutes the greater portion of the locally designated Wake Forest Historic District.

Interestingly, the original layout of lots near the college was not particularly unique. Rather, it was patterned, like most other early American communities, after the 1682 plan for Philadelphia. Philadelphia's plan had three principle features: (1) a gridiron street system, (2) designated open space, and (3) uniform spacing and setbacks for the buildings. Historians have noted that perhaps because it was a principal port of entry, Philadelphia was widely copied by later American towns, as the settlement of the country moved away from the Atlantic coastline.

Thus, most early 19th century towns, including Wake Forest, took on a basic grid iron or trellis street pattern. In Wake Forest's case, this resulted in a series of streets running generally north to south, parallel to a ridge between streams, and series of avenues running east to west, perpendicular to the north-south ridge. Within this grid iron framework, a very compact town evolved around the open spaces and buildings of the College.

As envisioned by the College, most residences were built within a few short blocks from the campus. Homes of many of the faculty were quite large and lots small to keep walking distances to a minimum. Smaller houses were also kept close for those of lesser position, given the need to walk virtually everywhere. This pattern of development would largely define Wake Forest's growth for the town's first 100+ years.

Influences of the Railroad, 1840-1900

During the period from about 1840 to 1900, numerous economic, social, and technological advances of the industrial revolution would take America, and to a lesser extent, Wake Forest by storm. Railroad lines, which totaled 23 miles nationwide in 1830, increased to 2,818 miles by 1840. The telegraph (1844) and the telephone (1876) revolutionized the speed at which information could be transferred. The invention of the passenger elevator (1852) and the Bessemer steel converter (1864) paved the way for the development of skyscrapers beginning in the 1880s. Gas lights and, later, electric lights (1878), revolutionized indoor lighting, and made the fire hazards of congested buildings less threatening.¹

Wake Forest was by no means isolated from these revolutionary technological advances. With the arrival of the Raleigh and Gaston Railroad in 1840, Wake Forest's future became heavily intertwined with rail commerce and the growth it spawned. The rail line, which paralleled Main Street just two blocks "down the hill" toward Smith Creek, established the eastern border of the town. The closest depot was in Forestville, so students got off the train there and walked to the Institute.

The Raleigh and Gaston Railroad was a controversial subject for Wake Forest College since the station was in Forestville. The Railroad refused to finance two stations so close together, so the College worked to move the existing station near to the campus. The relocation finally took place in 1874, though there were still no buildings east of the railroad tracks. Interestingly, smoke and ash from the coal-fired locomotives was blown by prevailing winds from the north and west to areas south and east of the tracks. As a result, a pattern of town growth was established which would see the earliest residential neighborhoods of Wake Forest located largely to the west and north of the town center. Later, when diesel-fired locomotives eliminated the heavy smoke and ash problem, areas to the east and south of the railroad tracks became suitable for development.

Economic Diversification, 1900-1956

As America was nearing the turn of the 20th century, the influence of rail on Wake Forest was to become even more pronounced. The relocation of the Raleigh and Gaston Railroad station in 1874 was the beginning of the commercial development around Wake Forest College. In the years just before the turn of the century, several of the businesses operating

¹ Coke, James G., "Antecedents of Local Planning", page 16 of *Principles and Practice of Urban Planning*, William I Goodman, Ed., ICMA 1968



in Wake Forest were established: Powers and Holding Drugstore, W. W. Holding Cotton Merchants, Dickson Brothers Dry Goods and Jones Hardware. Later, the Bolus, Wilkinson, Keith and Joyner families established businesses between 1910 and 1920. In 1909 the community previously known as the Town of Wake Forest College was re-chartered and renamed, Wake Forest.

Also, at the turn of the century, the Wake Forest area saw its first industrial development—a significant departure from the college-dominated local economy. The Royall Cotton Mill was completed in 1900 on a site just north of Faculty Avenue. W.C. Powell, R.E. Royall and T.E. Holding established the mill to produce muslin sheeting. Though the mill village was largely self contained, the industrial style buildings and adjoining workers' housing changed forever the character of this area north of town.

At the same time, the college grew and employed more people, as did the various other businesses in the area ñ two foundries, a number of grocery and other stores, etc. This was the time when cotton truly was king in the area and Wake Forest served the surrounding farms.

The impact of this growth was made evident by contrasting trends in the town's population in the decades immediately before and after 1900. U.S. Census records from the time show a slight decline in the town's population from 1890 to 1900, followed by two decades of growth from 1900 to 1920. During the first two decades the 20th century, the town grew from 823 to 1,490 residents.

The next major surge in population was not to occur until the 1940s. In 1950, Wake Forest had reached 3,704 residents or more than twice the population of the town just ten years earlier.

Wake Forest College Departs: Decline and Recovery, 1956-1980

Wake Forest College moved to Winston-Salem in 1956, selling the campus to the Baptist State Convention for Southeastern Baptist Theological Seminary. US Census records for the period show that with the departure of Wake Forest College, the population of the town dropped by nearly a third, from 3,704 in 1950 to 2,664 in 1960. It wasn't until the 1980 Census that the town's population recovered to the pre-college departure population of the town in 1950.

Even so, the town did not stop growing after the college left. Instead, several new industries moved into the area, bringing workers and the need for

additional housing. Among the new industries that came to Wake Forest were Schrader-Bellows, Athey Products, Huyck-Formex, Burlington Industries (1950s), Neuse Plastics (1960s) and Walter Kidde (1980s). Wake Electric was also up and running in the 1950s, and people were beginning to have enough money, thanks to the industries and electricity, to afford new homes in town and on the farms.

Of note, most of the industries that came to the area in the latter half of the 20th century closed their doors during the first decade of the 21st century. Today there are few large-scale manufacturing enterprises still operating in the Wake Forest area.

Wake Forest and the Triangle, 1980-Present

During the 1980s and 1990s, several factors came into play that would have a profound impact on the growth of Wake County and the Town of Wake Forest in particular. The City of Raleigh, along with several other communities in Wake, Durham and Orange Counties, began to experience the full economic impact of the Research Triangle Park, which was established in 1959 but experienced slow growth in the first years. At the same time, the University of North Carolina at Chapel Hill, North Carolina State University, and Duke University were rapidly emerging as institutions of higher learning with a powerful array of research capabilities to support the growth of one of the nation's leading high technology economies. In addition to a high technology business environment, the Triangle region also offered an excellent quality of life, a mild year-round climate, competitive wage rates and a steady supply of skilled workers.

While development activity was quite modest in Wake Forest during the 1960s and 1970s, new residential and commercial development blossomed during the 1980s and accelerated further during the 1990s and much of the 2000s. During the twenty-five year period from the early 1980s to the mid 2000s, northern Wake County and the Town of Wake Forest have experienced some of the most intensive growth of anywhere in the Triangle region.

Another huge factor set in play decades earlier would find its greatest influence during the 1980s and 1990s: the relocation of US 1 around Wake Forest. Constructed in the early 1950s and located a mile and a half west of downtown Wake Forest, this new route paralleled Main Street (the former Route 1). Ultimately, the four lane highway, also known as Capital Boulevard, caused a dramatic shift in the location of significant new commercial developments to this major travel corridor west of the downtown area.

The new US 1 also prompted commercial development near the intersection of South Main and the new highway. At the time the new highway was constructed, South Main Street was a residential, tree-lined street accommodating traffic coming north from Raleigh and headed for downtown Wake Forest. During the mid to late 1990s, properties along South Main near Capital Boulevard gradually converted to automobile oriented development. Old houses were sold, torn down and replaced with fast-food restaurants and other commercial services. Pressures remain to this day to continue stripping commercial development along this important entryway into the heart of Wake Forest.

CHALLENGES PRESENTED BY AUTOMOBILE DEPENDANT DEVELOPMENTS



To have a minimum amount of communication and sociability in this spread-out life, his wife becomes a taxi driver by daily occupation, and the amount of money it costs to keep this whole system running leaves him with shamefully overcrowded, understaffed schools, inadequate police, poorly serviced hospitals, underspaced recreation areas, ill-supported libraries.

Lewis Mumford April, 1958

Much has been said in the previous sections about the sudden interest in Wake Forest as a place to live starting in the 1980s and continuing to the present day. Of note, a disproportionately large percentage of the new development in Wake Forest during this period has either been automobile-oriented commercial within the Capital Boulevard corridor, or large lot residential development away from the highway corridor. This pattern of development echoes what occurred throughout America during the past half century, as overt dependence on the automobile and emphasis on “separation-of-uses” style zoning has led to a number of challenges which towns like Wake Forest are now dealing with. These challenges are summarized in the paragraphs below. Existing policies and standards of the Town of Wake Forest (prior to the adoption of this *Community Plan*), relative to mitigating the undesirable aspects of automobile-oriented development, are noted at the end of each paragraph.

Land Use

The gradual separation of residential and commercial land uses, which began in the 1910s and '20s, became complete in the suburban developments of the '70s, '80s and '90s. Large tracts of land were (and still are) routinely developed exclusively for single-family residential purposes. Residents of these areas are totally dependent upon the automobile to take them to shopping, work, or social affairs. Children too must be chauffeured by their parents to virtually all activities. Bicycles, once the child's ticket to getting around their community or running an occasional errand, now seldom leave their street. Not only are residential areas separated from non-residential areas, but in recent years there has been an increasing exclusivity of single-family residential areas from other single-family residential areas by the use of development walls and fences.

Note: The Town of Wake Forest encourages mixed use development. The Town Zoning Ordinance includes a Traditional Neighborhood District. (TND) The Town also encourages mixed use within the Renaissance Area. The Town is open to the creation of other new districts that would foster appropriate mixed use development.

Housing Market Segmentation

Market segmentation in residential development has been the watchword of the past several decades. In today's real estate market, there are developments which cater exclusively to various housing market "niches" for every stage of the life cycle: i.e. (1) group housing for college students, (2) apartment complexes for young professionals, (3) starter homes for young couples, (4) larger homes for more "mature" families, (5) retirement communities for active retirees, (6) assisted care living for the ambulatory elderly, the non-ambulatory elderly, etc. and (7) nursing homes for the elderly dependent.

Note: The Town of Wake Forest allows this issue to be market driven. Some developments such as Shearon Farms and Heritage Wake Forest have provided for a variety of housing types, although in distinct PODs rather than mixed housing types in the same neighborhood or subdivision. The yet to be built Holding Village will be the closest to a true mixed housing development.

Economic Segregation

In addition to the housing market segmentation mentioned above, there has also developed a stratification of new housing developments according to economic class and, by default, race. Thus, there are separate housing developments for low income, middle income, upper middle income and high income residents. Square footages and home prices are carefully guarded as the numerical gatekeepers of suburban neighborhoods, lest an inferior home of smaller size or value should be allowed to pull down property values. Despite the desegregation initiatives of the past forty years, our society has never been more fragmented in terms of the economic and racial makeup of our neighborhoods. (Note that prior to the mid-twentieth century, carriage houses, garage apartments, and small clusters of townhouses and apartment buildings readily mingled or were within close proximity of single family residences.)

Note: Similar to housing market segmentation, the Town of Wake Forest feels that price points on new housing are best left to the free market system. Some developers have recognized the advantages of having different price points in a single development, in terms of offering product for sale to a broader cross section of the home-buying public.

Both in town and site planning it is important to prevent the complete separation of different classes of people which is such a feature of the... modern town. Mrs. Barnett in her writings has laid special emphasis on this point and has referred to the many evils which result from large areas being inhabited entirely by people of one limited class.

Raymond Unwin, 1909

Density of Development

Though lot sizes in recent years and in some areas have been coming down in acreage, the predominant forms of development in much of Wake Forest and Wake County continue to be in one of two categories: (1) high density multi-family housing in large apartment, condo, and town house developments or (2) low density single-family residential development which is neither urban nor rural (i.e. 10-20,000 square foot lots). While there are exceptions, the higher density multi-family developments have typically been marketed to lower and middle income buyers and renters while the lower density, larger lot developments have been traditionally geared to the upper income purchaser. Yet, in the face of escalating fuel prices and greater interest in mass transit and bicycling, appropriately designed higher density development would seem to have merit for all income levels.

Note: The Town of Wake Forest has no specific policy to promote high quality, higher density development. Indirectly, the planning staff encourages developers to undertake well-designed, higher density projects so as to discourage sprawl and slow down land consumption.

Street Patterns

Curvilinear streets have been the norm for most new residential developments for the past fifty years. Originally designed in the late 19th century to respond to site topography and natural forms, curvilinear streets are often employed today as much for style as for site conditions. Such street configurations can be disorienting to a visitor, unacquainted with the neighborhood. There is often no clear principle street axis for the neighborhood, no sense of street hierarchy, and no landmarks at street ends (e.g. a church steeple) to provide a sense of direction.

Note: Street patterns in Wake Forest are largely determined by the area's rolling topography, consistent with good planning. However, most developments in the area have not been successful in establishing landmarks and in terminating vistas at street ends to create a sense of orientation. The Town of Wake Forest does limit the length of blocks in subdivisions which can help with the walkability of an area.

Neighborhood Connectedness

Neighborhood streets in most post-war developments of the late 20th century are not connected to those of adjacent developments. This leaves residents with no option other than to exit their neighborhood onto the closest major thoroughfare—even for local errands. It immobilizes children

and makes them dependent upon their parents to go anywhere outside the immediate neighborhood. Beyond that, it is not unusual for these developments to have only one or two ways out onto the major street system. This can create bottlenecks at the outlets, safety issues with regard to emergency access, as well as overloading the few main streets upon which nearly all cross-town traffic must depend.

Note: The Town of Wake Forest requires that new subdivisions create street stub-outs for connections with future adjoining neighborhoods. Reportedly, the Town has been largely successful in enforcing this provision.

Construction and Maintenance of Infrastructure

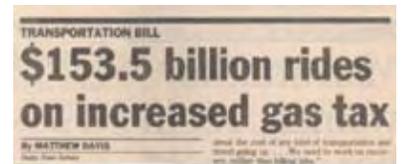
Water lines, sewer lines, new roads, storm drainage, natural gas lines, electricity, and phone service are all more expensive to build and maintain in large lot subdivisions. The cost of maintaining the street and highway system for a spread out, low density area can strain the ability of federal, state and local governments to keep up. Governments are especially hard-pressed to find monies to build new highway facilities to serve the ever growing traffic volumes on the few overcrowded and overused main thoroughfares available

Note: Once new infrastructure is created by a development and turned over to the Town, the Town is obligated to maintain it. Examples of infrastructure for which the Town is directly responsible, includes street paving and repair, sidewalks, storm sewers, and electric services. With regard to the demand for thoroughfare improvements, the new NC 98 Bypass south of the Wake Forest town core will soon be complete for its entire length. Capital Boulevard is planned for yet another redesign and reconstruction.

Delivery of Public and Private Services

Public transit, postal delivery, trash pick-up, police protection, and school buses are a few of the services that are expensive and inefficient to operate in low density developed areas. A public transit system in particular becomes especially expensive to operate in such areas, where there are few identifiable concentrations of population density.

Note: Once a low density development pattern is built, the Town is obligated to provide services to the occupants of the area. Examples of services for which the Town, and ultimately the taxpayer, must absorb the cost of serving a spread out community, include law enforcement, fire protection, and street cleaning. The Town's recent establishment of a fledgling "circulator" bus service within the town also points up the importance of transit-oriented development.



Scale of Development

New commercial uses have grown in scale and proportion to the point that it is not surprising that residential neighborhoods disdain them as neighbors. Retail commercial uses, in particular, with their attendant eye-grabbing signage and large, floodlit parking areas are especially disfavored. As a result, these uses are either stripped along major streets or clustered in shopping centers. In either case, they are generally only accessible by the automobile.

Note: Most automobile-oriented commercial development in Wake Forest has occurred along or near Capital Boulevard. The Town Planning Department has prepared a “Village Commercial” zoning district in draft form, so as to be prepared for fine tuning and future application when a non-auto-oriented commercial development comes along.

Commercial Architecture and Building Character

Single function, land-use zoning at a scale and density that eliminates the pedestrian has been the norm for so long that Americans have forgotten that walking can be part of their daily lives.

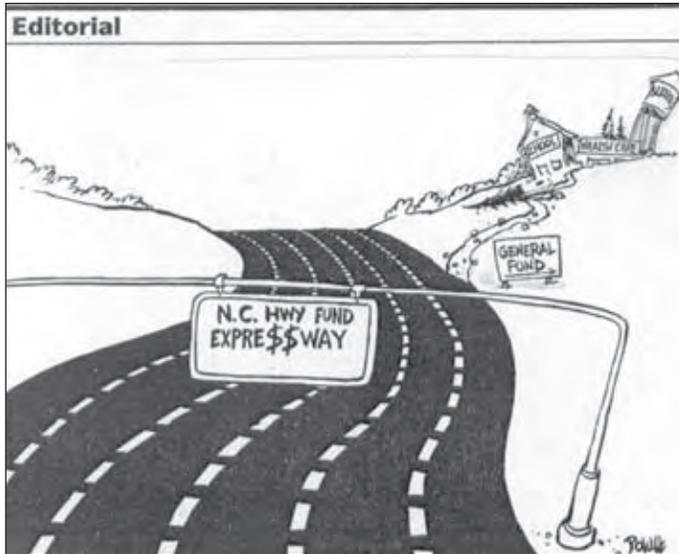
Peter Calthorpe, 1989

“Monolithic” and “lacking detail” are two general descriptors of automobile-oriented architecture. Human scaled, pedestrian-oriented architecture with its associated architectural details, street furniture, and signage, gave way to modular, monolithic construction practices after World War II. New public buildings, such as post offices and schools also reflect this lack of quality in design both in terms of their undistinguished locations and their unadorned architecture. Public revenues, which might have been available in the past to create civic buildings of merit and distinction, are instead expended on the costs of building and maintaining the massive infrastructure necessary to support a sprawling, partially developed urban area.

Note: The Town of Wake Forest has incorporated architectural and aesthetic design standards for commercial development into its zoning ordinance. These design standards address rooflines, use of natural materials, awnings, window fenestration, parking lot landscaping and other appearance issues. Special design standards are also in place for the older commercial areas of Wake Forest, as established under the Renaissance Plan. The Town has also adopted special corridor plans for Capital Boulevard and the NC 98 Bypass that address design issues.

Residential Architecture and Building Character

“McMansion” is an unflattering term sometimes employed to describe much of today’s residential architecture. While overall square footage and interior appointments (i.e. entertainment rooms, luxury baths, well-appointed kitchens, etc.) have continued to improve, the relationship of new



Raleigh News and Observer,
April 18, 1991

houses to the neighborhoods in which they are located has often left much to be desired. Homes which once pulled up to the street, thereby creating a streetspace and sense of place, are now set back as far as possible, aloof and distant, but impressive. Front porches, which once looked out upon the public realm of the street, inviting neighborly visits, have now been replaced by private decks and patios to the rear. Garages, cars and trash receptacles, which were once relegated to the rear of the property, now dominate the streetscape and are often the most visible aspects at the front of the homesite.

Note: For the most part, front yard setbacks set forth in the Town of Wake Forest Zoning Ordinance are 20 to 30 feet depending on the particular zoning district. These setbacks are relatively modest by most suburban standards; when combined with requirements for sidewalks, opportunities exist to create front porch style neighborhoods. Implementation of such neighborhood design is left to the discretion of the private sector. The Town's regulations are silent with regard to "snout houses", where the garage and garage door are the closest elements of the house to the street and visually dominate the streetscape.

Sidewalks

With so much dependence on the automobile and few non-residential services near new neighborhoods, many communities stopped requiring sidewalks. Without front porches to encourage neighborly dialogue, and with no destinations (e.g. a community park or corner store) within walking distance, sidewalks had no purpose. Low density, sprawling development patterns rendered pedestrian mobility and therefore, sidewalks, unnecessary, at least in the views of many.

Note: The Town of Wake Forest requires new developments to provide sidewalks on both sides of collector or higher order streets and one side of local streets and cul-de-sacs over 400 feet long. No sidewalks are required on cul-de-sacs less than 400 feet long.

Street Trees

Originally provided by the developer as an integral element of a new residential neighborhood, the planting of street trees became the responsibility of the individual homeowner. Where the consistent planting of street trees once created an attractive overhead canopy for the common “room” of the street, the random planting of oftentimes ornamental trees seeks to draw attention away from the street and to the glorification of the individual property. Further, without disciplined rows of street trees, many suburban streets are hotter in the summer than they need be due to the effects of exposed asphalt and lack of shade.

Note: The Town of Wake Forest development standards require that street trees must be planted along both sides of collector or higher order streets. The Town also requires that all developed sites must retain or receive one canopy tree and one understory tree for each 5000 square feet of developed area. Oftentimes, developers satisfy this requirement by planting street trees.

Nine General Policy Recommendations

The foregoing discussion of historic eras of growth offers many insights regarding various aspects of past and present development. After considering these insights, the following nine general policy recommendations (GPRs) may be set forth regarding the future development and redevelopment of Wake Forest.

GPR-1. Complete neighborhoods, rather than monolithic subdivisions, should be encouraged. Neighborhood designs should foster a mixture of compatibly scaled housing types on compact, urban lots. Appropriately scaled and designed shopping, working and gathering places should be integrated into the design and redesign of complete neighborhoods.

GPR-2. Demand for large scale commercial, institutional and manufacturing facilities should continue to be met in locations buffered from neighborhoods. Buffering may be accomplished by transitional land use (preferred), by screening, or by distance, if necessary. Access to these areas by means other than the private automobile, should be designed into the original development plans.

GPR-3. Provision for public transit and other alternatives to the private automobile (i.e. bicycling and walking) should be encouraged within the development and redevelopment of all residential, shopping, gathering and work places.

GPR-4. Street patterns should be carefully configured to allow for multiple outlets from neighborhoods, and to continue the policy of providing for connections between neighborhoods, without encouraging through traffic.

GPR-5. A network of planned walkways, bikeways and greenways should continue to be implemented as an integral part of town growth and development. Sidewalks, bikeways and greenways should be required as part of the necessary infrastructure for new development.

GPR-6. Regularly spaced street trees, selected and planted in accordance with a street tree master plan, should be required in new developments, whether commercial, office or residential.

GPR-7. New public and private buildings of architectural significance should be placed in locations of prominence and visual importance. Such uses might include post offices, libraries, schools, community buildings, firehouses, and places of worship. Private buildings may include a wide range of uses from major office buildings to senior citizen housing, to manufacturing facilities.

GPR-8. Each neighborhood should have adequate open space areas designed into the development from the start. If possible, this should include a central open space in the form of a public square or commons suitable for outdoor gatherings and quiet enjoyment.

GPR-9. Residential architecture should respect the value of the street upon which it faces, and contribute to the sense of community. This generally means houses pulled up to the street, porches in front, a front walk connecting to the sidewalk, and garages to the rear or at least set back from the front face of the home.

As will be seen throughout the balance of this plan, the Town of Wake Forest is one of the most forward thinking small towns in North Carolina when it comes to good community planning. The specific policy recommendations set forth in this plan are intended to augment the existing planning program of the Town, thereby further enhancing Wake Forest's image as one of the best communities in the state in which to live and work.



For the current American way of life is founded not just on motor transportation but on the religion of the motorcar, and the sacrifices that people are prepared to make for this religion stand outside the realm of rational criticism.

Lewis Mumford, April, 1958

Town Vision

The following fifteen Vision Statements are based on public input received at a special Town Meeting held on April 19, 2007. In answering the question “What is your vision for Wake Forest?” over 200 citizens identified nearly 1,000 ideas, concerns, and issues. After the meeting, all the ideas were reviewed for common themes. These Vision Statements are written as if it is 10 to 15 years from now and we are looking back at changes that occurred as a result of the *2007 Growth Vision for Wake Forest*.



1. Small Town Character, Attractive Appearance

Wake Forest has kept its small town feeling and identity, while continuing to grow. Attractive, walkable neighborhoods, a thriving historic downtown, excellent community services, and an outstanding quality of life have made Wake Forest among the most desirable locations in the Triangle region. Streets in Wake Forest exude a welcoming, small town charm—overarching street trees, lush landscaping, understated signage, and wide, shaded sidewalks combine to create a truly inviting community character. Even road signs and traffic signals exhibit a quality design. Greenery is everywhere. Small parks and natural areas are within walking distance of most parts of town. Office and retail parking lots, once viewed as “seas of asphalt”, are now tree-shaded and landscaped. Wake Forest has minimized “anywhere USA” development. Instead, buildings, old and new, honor the 100-year-plus heritage of the community. New two and three story buildings are finished in wood, brick and other traditional materials, and relate well to the street and their surroundings.



2. Vibrant, Revitalized Downtown

Wake Forest has a healthy, vibrant downtown with a unique mix of restaurants, shops, offices, entertainment and housing. Downtown streets are filled with people of all ages day and night, drawn by the historic character and beauty of the area, the human scale of its buildings and public spaces and a diverse offering of special concerts, festivals and cultural events. Storefronts and sidewalks exhibit a colorful, inviting mixture of merchandise, flower-filled planters, benches and other amenities. Additional parking is provided on the interior of blocks or at perimeter parking lots, so as not to detract from the tightly woven, pedestrian character of the area. Downtown buildings, new and old, have retained and respected the modest architectural scale and design detail that is so much a part of the

heritage of Wake Forest. An upgraded Farmer's Market has found a permanent home and a full service grocery store provides convenient shopping for the increasing numbers of downtown area residents. The Renaissance Plan for the heart of Wake Forest has become a reality.

3. Well Planned and Timed Infrastructure

The Town has planned ahead for necessary infrastructure, including adequate roads, water, sewer, schools, open space and greenways, sidewalks, and drainage. These services must be in place prior to the occupancy of the new development they serve. Infrastructure has, in many cases, been strategically employed to encourage development where it can best be accommodated. Advanced planning has allowed future school and park sites to be located and acquired ahead of their need. Planned highway and transit corridors have been identified to ensure their protection during the development process. Similarly, future greenway corridors have been mapped so that they may be incorporated into the design of new developments. An area-wide stormwater management plan has anticipated necessary drainage and retention facilities as development has occurred.



4. Growth That Pays its Own Way

Growth and development pays its own way in Wake Forest. Impact fees and infrastructure improvements, paid for as part of the development process, have been successful in offsetting the costs of additional schools, fire stations, parks and roads brought about by growth. This has lessened reliance upon existing property tax payers to finance the growth-induced expansions of these facilities. By encouraging efficient development patterns, Wake Forest has continued to deliver quality municipal services for a tax rate below regional averages. In addition, compatible commercial and light industrial development have continued to expand the town's non-residential tax base, helping to offset the costs of town services associated with new residential growth.



5. Efficient, Multi-Modal Transportation System

The Town of Wake Forest has worked proactively with the State DOT toward a balanced, efficient, multi-modal transportation system. Enhanced planning and technological advances in traffic management have resulted in a more efficient system of major and minor thoroughfares. US-1 and 1A have especially benefited and are better able to serve patrons of businesses along these routes as well as commuters. A new area-wide mass transit system serves Wake Forest, providing a stress free commute to



and from Raleigh and the Research Triangle Park. The new transit service has been effective in helping to keep traffic counts and congestion below previously projected levels. The Town's policies on compact growth have reduced automobile dependency; compared to other communities, many residents of Wake Forest are able to walk, bike, or take the bus to most daily activities.

6. Walkable and Bikeable Community

Wake Forest continues to work toward becoming a very walkable and bikeable community. Mixed use developments encourage walking from home to work, shopping and transit services. New streets, as well as improvements to existing streets, are designed for multiple users (motorists, bicyclists, and pedestrians) according to the level of traffic intended. Most streets have sidewalks on both sides; many larger streets have bike lanes. Designated crosswalks are evident throughout Wake Forest, but especially in the downtown area. In general, there is a high level of connectivity between neighborhoods and developments by a well-integrated network of streets, sidewalks, bikeways, walking trails, and greenway trails. This continuous system provides for a multitude of driving, walking, bicycling and transit alternatives. Cul-de-sacs are employed sparingly, in favor of fully connected neighborhood streets.



7. Open Space and Environmental Quality

In managing its growth, Wake Forest has worked to preserve open space and minimize adverse impacts to the region's air and water quality. The Town's walkable neighborhoods and nearby services are designed to create less traffic congestion and require shorter commutes. Streams and drainage ways passing through Wake Forest receive less storm water runoff and pollution due, in part, to policies on dedicated open space, tree preservation, landscaped parking areas, compact two and three story buildings, and vegetated buffer strips along streams and roadsides. Infill development and the adaptive reuse of vacant buildings has reduced the need for land clearing and sprawl. Solid waste levels have been substantially reduced through good participation in community-wide recycling efforts.

8. Expanded Park and Recreation System

As the community has grown, Wake Forest has steadily added to its system of parks and open space. Many smaller parks have been created through the Town's routine development approval process. Some larger park areas have come about through advanced planning and property acquisition by

the Town. An extensive system of greenway trails, primarily adjoining area streams, is enjoyed by hikers, bicyclists, and others. These greenways also serve as natural corridors for the movement of wildlife in Wake Forest. The Reservoir has been protected and enhanced as an outstanding outdoor recreation area with walking paths, picnic areas and other low impact recreation facilities. A major new community recreation center has been completed, featuring an excellent indoor swimming pool.



9. Neighborhood Schools and Lifelong Learning

The Town and Wake County Schools have worked cooperatively to plan for schools well in advance of growth to avoid overcrowding and the need for mobile classrooms or constant redistricting. Traditional school buildings, whether new or rehabilitated, are located and designed to serve and be accessible to the neighborhoods around them. Rather than functioning as single purpose “factories to educate children”, schools in Wake Forest serve as true neighborhood centers, providing space for community gatherings, recreational events and other functions. Increased diversity within the Town’s neighborhoods has reduced the need for bussing to assure social and economic diversity in the schools. In addition, a new, large, state of the art library located at the center of the community serves as a flagship for education in Wake Forest, where an attitude of lifelong learning has become second nature to most residents of the town.



10. Balanced, Compatible Commercial Development

Town officials have navigated a careful course, balancing the need for sustained economic development against the threats to the community from over-commercialization. Small, locally owned shops and restaurants have been favored over big box retailers, chain stores, and “asphalt intensive” shopping centers. Various incentives have been employed, including a zoning and regulatory environment conducive to small business. Both small and large businesses alike have been required to take on development forms that blend easily into Wake Forest’s historic, small town image and character. Vacant commercial and industrial buildings have been renovated and adapted for use as cultural facilities, retail stores, offices, innovative housing, or for small business incubators. Policies have been implemented to prevent indiscriminate abandonment and prolonged vacancies of “big boxes” left behind for “bigger boxes”.



11. Affordable Housing and Quality Neighborhoods

Wake Forest neighborhoods display a wide variety of housing types and



values, including attractive, affordable housing in many forms and locations. New and old neighborhoods alike are attractive and well maintained, having benefited from the town's shared economic prosperity, and overall quality of life. Walkable, mixed use neighborhoods are favored over automobile-dependent, cookie-cutter subdivisions and gated communities. An open system of pedestrian and bicycle friendly streets work together with a network of greenways to connect neighborhoods with the rest of the town. Most residential areas are convenient to neighborhood services, as well as public transit. Wake Forest is known for safe, secure, quiet neighborhoods in every part of the community, with well-tended yards and gardens, and small parks close at hand.

12. Support for Arts and Culture

Wake Forest has emerged as a destination for arts and culture in the Triangle area. Appreciation for the arts and culture begins with value placed on the unique heritage of the town, exemplified by the preservation of historic buildings and landmarks throughout the community. Public art graces many public spaces. Cultural activities include a broad selection of traditional and contemporary art forms, festivals, fairs, concerts, plays, seminars, and cross-cultural events. Young and old, as well as people from many ethnic backgrounds, are drawn to a constantly changing array of indoor and outdoor events. All of these activities are facilitated by the addition of a new performing and cultural arts center of outstanding design and utility.

13. Better Jobs, Larger Tax Base, Local Businesses

Wake Forest is a community dedicated to the creation and prosperity of small businesses. As a result, Wake Forest's business sector has seen steady growth and diversification. New and expanding businesses, as well as some post-industrial industry, have provided for a favorable tax base, holding property taxes down. Those who wish to make Wake Forest their permanent home can find well-paid, lifelong career opportunities without having to leave the community. While workers in services, retail trade and some types of manufacturing continue to be an important part of the local economy, other kinds of work have expanded, including health care, information services, and professional and technical services. A significant tourism base has taken root, as visitors are drawn by the preservation and enhancement of Wake Forest's historic, pedestrian-oriented, small town charm.

14. Community Dedicated to Public Safety

Wake Forest is a community of neighbors, business owners, police, firemen and other public safety personnel committed to working together for a safe and secure town. Highly visible police officers may be seen on a regular beat, oftentimes on foot or bicycle, getting to know the neighborhood kids, and their parents. Fire fighters are out in the community more than ever, teaching fire safety in schools and conducting courtesy fire inspections of homes and businesses. Our citizens and our public safety officers continue to support a safe and secure community free of drugs, gangs, vandalism, violence and crime.



15. Good Leadership, Communication and Involvement

Residents of Wake Forest show a keen interest in the affairs of their town government. There is a can-do spirit driven by civic pride and revealed through broad community involvement. The Town Board and various Town committees have no shortage of interested, qualified people willing to serve. Area citizens are heavily involved in civic clubs and organizations; volunteerism is a constant source of energy as it is poured into the institutions and organizations that work to improve the community. Town Commissioners routinely seek the views of their constituents on important decisions through personal contacts as well as enhanced information sharing and technology. A renewed focus on timely, effective communication between town government and town residents has greatly enhanced decision making in Wake Forest. Intergovernmental cooperation among local governments and state government agencies has done much to improve regional planning throughout Wake County.







The Neighborhood Planning Area

The Common Sense Building Block of a More Livable, Less Traffic Congested Town

What Is A Neighborhood Planning Area?

As used in this plan, a neighborhood planning area means a section of the Town of Wake Forest, usually about one half to one mile on a side, that is formed by major physical boundaries or barriers. Most often, the planning area boundaries are major thoroughfares. However, planning area boundaries may also be formed by a creek or stream, railroad tracks, a large “walled off” land use, or other significant physical barrier. In general, these are all boundaries or barriers which inhibit pedestrian movement. (See *Neighborhood Planning Area Map*, Back of Plan)

As a practical definition, a neighborhood planning area may also be viewed as an area of the town, normally bounded by major thoroughfares, across which you would not comfortably send a middle-school-aged child. Such planning areas, due to their size, often contain more than one subdivision or development.

Seven Principles for a More Livable, Less Traffic Congested Wake Forest

This plan proposes seven common sense principles for the design, development, and redevelopment of neighborhood planning areas within the Town of Wake Forest. Most of these principles require much more explanation than can be provided in this brief section—the particular policies of the plan provide details on the reasoning and significance of each of these principals as applied to specific circumstances in Wake Forest. The purpose of this section is simply to provide an overview of the seven concepts.

Each neighborhood planning area in the town will not lend itself equally well to the application of these principles. This is particularly true in the newer, existing suburban neighborhoods of the town where established development patterns and street layouts may differ considerably from those recommended in this plan. Therefore, these principles should be applied *to the extent practical* to each of Wake Forest’s developed and undeveloped planning areas¹ over the next twenty years—and beyond. The seven principles are:

Note specific features of a well-designed neighborhood planning area:

The ¼ mile radius extending out from the community center encourages walking to neighborhood-oriented institutions.

The street layout and pavement widths allow for ease of movement within the neighborhood but discourage cut through traffic. The approximate ½ mile spacing between thoroughfares makes these perimeter roads the more convenient option for through traffic.

The internal network of interwoven streets provides many alternative walking routes, adding interest and options for the pedestrian. There are no (or very few) cul de sacs to isolate and create dead end streets.

Children can walk to school or ride bikes to the store without crossing a major thoroughfare. Families can walk to places of worship. Some employees can walk to work places within the neighborhood planning area.

Parks and open spaces are well located for convenient access and to encourage “eyes on the park” for security and safety. Parks are not simply leftover sites, nor are they “hidden away” in the woods.

Commercial uses are located at the corners of the planning area, rather than the sides, which discourages cut through traffic. They are accessible from within the neighborhood planning area.

Apartments are located closest to the shopping areas or on upper floors, above the stores themselves. Such higher density housing is convenient to transit services traveling along major streets.

Principle 1: Provide for evenly spaced major streets about 1/2 mile to not more than 1 mile apart north to south and east to west.

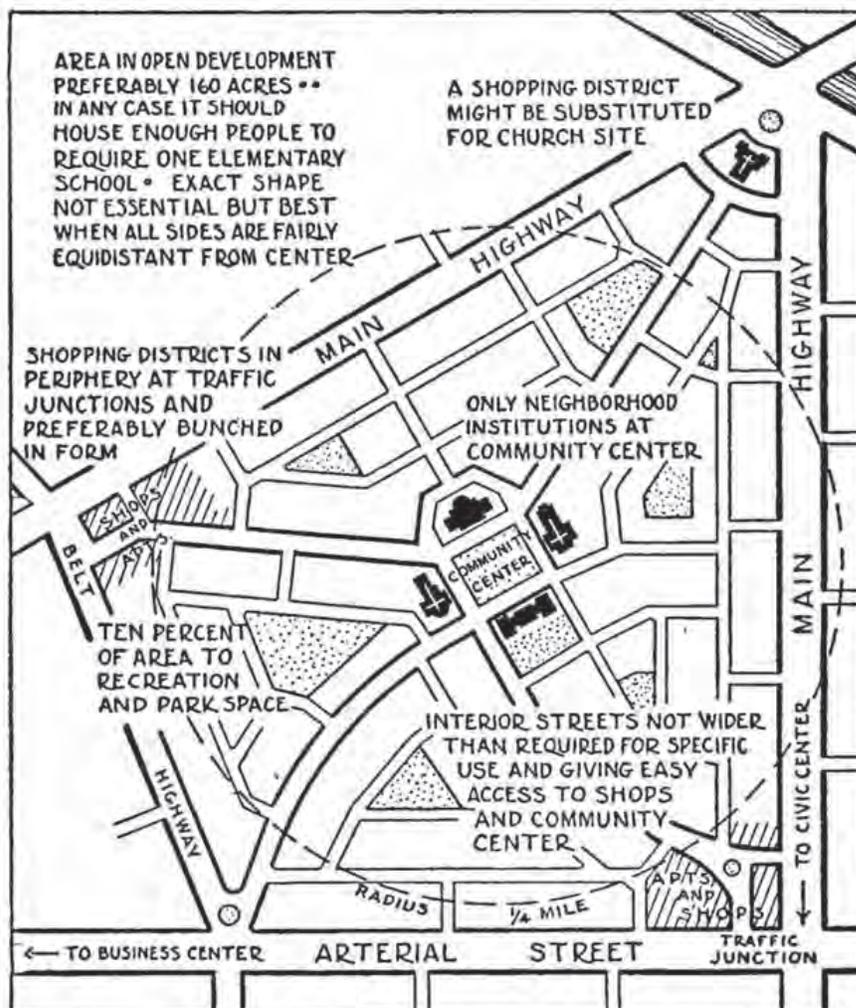
This spacing of thoroughfares will create/reinforce neighborhood planning areas that are not so large as to be unwalkable. This frequency in spacing also helps minimize travel demand for cut through traffic on neighborhood streets by making thoroughfares the better alternative. While there are plenty of exceptions, many of the town's existing and proposed thoroughfares come close to this standard, especially nearer to the center of town.

Principle 2: Provide for each of the daily needs of living within each neighborhood planning area:

- Places to live
- Places to work
- Places to shop
- Places to gather (schools, parks, churches, etc.)

Each area in which it is intended to develop a localized life must of course be provided with every facility for all the different branches of life that it is practicable to localize. There should be local work and occupation for as many as possible of the people living there; there should be local markets and shopping centers to provide for their daily needs; there should be educational and recreational facilities.

Lewis Mumford, January, 1954



A well-designed neighborhood planning area, as reproduced from the New York Regional Survey of 1929

Adherence to this principle will provide residents with *at least the option* of staying inside the neighborhood planning area for some of their daily activities, provided the internal circulation pattern of the planning area allows it. In doing so, the total number of trips that the town's thoroughfares must handle can be reduced.¹

Principle 3: Connect the streets, walkways, and bikeways of new developments within each neighborhood planning area. Employ careful design to discourage through traffic from outside the neighborhood planning area.

In a well-designed neighborhood unit, [people] should be able to go to any part of it, including the shopping area, the library, the church, the community center, without crossing a traffic artery.

Lewis Mumford, *May*, 1956

Too often, development plans are drawn up to purposefully isolate a new neighborhood or shopping area from adjoining areas. "Exclusive" has become a much overused marketing term intended to imply a neighborhood which is physically or economically superior and set apart from its surroundings. Unfortunately, the only way in or out of such exclusive neighborhoods is usually the closest major thoroughfare. This results in a situation where all traffic must get onto already congested major thoroughfares to go anywhere. It also prevents walking or biking to other neighborhoods or to other non-residential areas, such as places to work, shop, or play. In contrast, by connecting adjoining neighborhoods to one another, pedestrian and bicycle movement within the neighborhood planning area is made possible, thereby avoiding the need to get out onto the major thoroughfare for every aspect of civic life. A well-connected honeycomb of streets, rather than isolated and dead end cul de sacs will connect the community socially and provide many alternative routes for moving about within Wake Forest.

Principle 4: Design the streets (layout and width primarily) according to their intended use.

Neighborhood streets should be no wider than necessary to serve the specific type of development and traffic that will occur along each street segment in the neighborhood. Examples include:

- Local streets serving contemporary single family homes can be quite narrow. Where driveways (i.e. off street parking) are in common use, extra width street paving for on-street parking is generally not necessary.

¹ As is the case across the country, traffic volumes Wake Forest's major thoroughfares have been increasing much faster than the rate of population growth. This disproportionate increase in traffic may be attributed in large measure to the over-reliance on just a few major thoroughfares having to carry all cross town traffic, total automobile dependence of some neighborhoods, and the lack of services within walking distance of many residential areas. It is estimated that a typical suburban home generates approximately 10-14 automobile trips per day. If only half of those trips could be contained within the neighborhood planning area, future increases in traffic volumes on the town's major thoroughfares could be reduced significantly.

- Local streets serving neo-traditional homes with front porches in front and garages in back should allow for on-street parking in front and alleyways to the rear.
- Axial roadways leading into a neighborhood center should receive special treatment consistent with their importance (e.g. central median, special street lights, crosswalks, etc.)
- Major entryway corridors into town should be designed to move a large volume of cars while emphasizing roadside appearance. (access from intersecting streets only, rather than private driveways, attractive signage and landscaping, screened parking areas, etc.)

Complete streets designed to serve both the automobile and the pedestrian will encourage their full use and maximize taxpayer investment in the road infrastructure.

Principle 5: Rather than building large, single use subdivisions, build full service neighborhoods, with residentially scaled services close at hand. Vary the types and price-points of housing to encourage social and economic diversity in each planning area.

Large, homogenous tracts of land developed for residential use only create auto-dependency. Residents must drive everywhere for anything outside the home. Providing for appropriate neighborhood-level services within short distances of most homes will encourage walking from residences to places of work, shopping and gathering. Also, the types and price-points of new housing should be varied within a neighborhood planning area to avoid the economic and social isolation that comes from creating large developments which cater to a single age or income group.¹

Principle 6: Locate major traffic generators only on the corners of the neighborhood planning area.

Major traffic generators are normally large scale or high volume shopping and work places (e.g. a large shopping center or hospital). By placing these major traffic draws only at the intersection of two or more major streets, two important objectives are achieved. First, cross-town traffic is not tempted to cut through a neighborhood planning area to get to one of these major attractors. Second, such placement ensures that major traffic generators are located where traffic can be adequately *dispersed*— on to the two or more thoroughfares forming the corner of the neighborhood planning area.

The other force that has attenuated the social functions of the city, . . . is the tendency toward segregation: a tendency accentuated by the seemingly progressive function of zoning, which, in the United States, often segregates classes and income groups as well as races, into identifiable quarters, whose members have relatively little to do with those of higher or lower status. As a result, each group, each class, each social caste lives in a world which, in both its architectural and its social arrangements, denies the manifold cooperations of all human communities.

Lewis Mumford, January 12, 1962

¹ It is also worth noting that by providing for social and economic diversity within each planning area, the need for costly bussing to achieve diversity in nearby schools is rendered unnecessary.

Principle 7: Locate pedestrian-oriented neighborhood services at one or more carefully selected and designed focal points central to the neighborhood.

Pedestrian-oriented neighborhood services may include uses such as an elementary school, one or more places of worship, a community center, park and recreational uses, and perhaps a small general store and post office. Obviously, locating these uses at a central location in the neighborhood is most easily applied to *new* developments; careful site selection and design can integrate these services into the fabric of the neighborhood from the outset. This encourages walking and biking to these services by neighborhood planning area residents, but makes access by cross-town traffic less likely. It can, however, be a convenient location for a central neighborhood planning area transit stop.

Important note: These principles are not intended to suggest that all the needs of a person or family are going to be met within a single neighborhood planning area. However, a primary objective and benefit of this concept is to provide at least the option for some portion of each household's needs to be met within the boundaries of the neighborhood planning area, thereby reducing auto-dependency, congestion on the town's thoroughfares, and providing for a better neighborhood environment and quality of life.

Neighborhoods

OLDER NEIGHBORHOODS

Summary of Issues

In general, these areas contain some of the most architecturally significant, historic, and walkable neighborhoods in the town. Included in these areas are the Wake Forest Historic District, the Glen Royall Mill Village Historic District, and many other residential streets not associated with a particular named subdivision. Most of the streets in these areas are laid out in a well-connected, grid iron pattern, and many are graced with mature street trees arching over the pavement. *(See especially the Historic Districts map in the Arts, Culture and History chapter of this plan.)*

Generally, these older neighborhoods are convenient to the services of the historic downtown area and a wide range of cultural, civic, and educational institutions. Several public parks provide open space relief within walking distance of most residences, including Miller Park, Kiwanis Park, Taylor Street Park and Holding Park. Because these neighborhoods are



near the downtown, there are also employment opportunities nearby. Government, finance, education, and small businesses are all located within a short distance of these residential areas. In short, the older part of Wake Forest embodies many of the preferred urban design principles set forth in this plan.

At the same time, some parts of “old Wake Forest” continue to be challenged by issues typical of inner city neighborhoods. These issues include higher than average unemployment, and many single parent and elderly households on limited incomes. Though it contains some of the most picturesque, tree-lined streets in the town, the area also suffers from a higher percentage of substandard housing units and old infrastructure. Because parts of the area are hampered largely by social and economic challenges, rather than by poor urban form, the policies set forth in this section include social and economic initiatives as well as physical improvements.

Policies for Older Neighborhoods

Policy ON-1: Concentrated police protection, preferably in the form of foot and bicycle patrols, should be provided as part of a comprehensive strategy for neighborhood revitalization and crime prevention.

During the town meetings held for the community plan, area residents identified neighborhood security and crime prevention as one of their highest concerns. Until recently, (i.e. about 2000), the Town had a strong community policing program, complete with officers patrolling on bicycle and foot. The town’s compact older neighborhoods allowed for bicycle patrols to be provided with some success. With the rapid growth and expansion of the town into the suburbs, however, along with cutbacks in special federal funding for local law enforcement, the decision was made

The first thing to understand is that the public space of cities is not kept primarily by the police, necessary as police are. It is kept primarily by an intricate, almost unconscious, network of voluntary controls and standards among the people themselves, and enforced by the people themselves.

Jane Jacobs, 1961

to return to a largely patrol-car-based police force. Given the much larger territory of the town, as well as concerns about how best to use available manpower, a return to patrols by automobile was deemed necessary.

All that said, residents attending community meetings for the recent Northeast (East End) Neighborhood Plan voiced their desire for a return to community policing. As a result of these requests, the Police Department has established a foot patrol, primarily for the East End neighborhood. Starting last July (2007) a team of four officers were assembled to work mostly the northeast area of town. While bicycle patrolling was also planned, the Town's bicycles available for such use were found to be in poor condition, with no money in the budget to replace them during the 2007-2008 fiscal year¹.

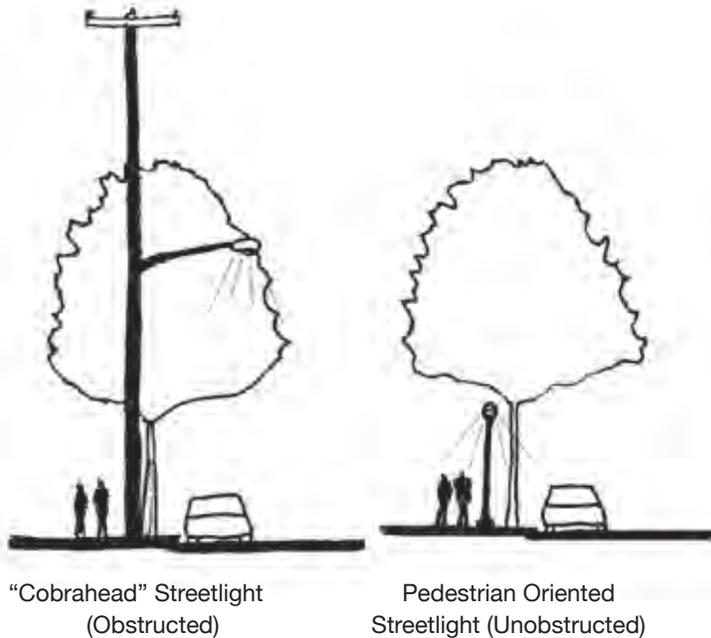
The community's interest in community policing stems in some measure from its ability to focus on particular trouble spots. Community policing is also intended to improve communication and trust between neighborhood residents and the officers assigned to each neighborhood area. For community policing to work, it must have the cooperation of people living in the neighborhood. Residents must be willing to call the police, support their efforts, testify, keep things locked up and take a stand against crime.

Ultimately, the hope is that greater cooperation between the community and the police department will have a measurable impact on loitering, drug dealing, burglaries, assaults, and opportunities for neighborhood mischief, generally. This plan therefore recommends that community policing be continued in the northeast part of town and also be considered for other suitable areas of Wake Forest as priorities and budgets allow.

Policy ON-2: Pedestrian-level streetlights and appropriately designed private property lights should be encouraged, particularly in the town's older walkable neighborhoods.

Note that this policy includes lighting in two forms: 1) streetlights and 2) private property lights. Currently, most streetlights in Wake Forest's older residential neighborhoods areas are tall, infrequently spaced "cobra head" lights, suitable primarily for vehicular traffic. In fact, it is not unusual for such lights to be 200 or more feet apart. Due to their height and infrequent spacing, these lights are oftentimes blocked by trees, creating shadows, dark voids, and other areas of incomplete coverage. New, pedestrian-scaled streetlights should therefore be installed at frequent intervals

¹ Information provided by M. Greg Harrington, Chief of Police, Town of Wake Forest, via e-mail dated March 26, 2008.



adjacent to all public sidewalks. These streetlights should be no more than 12-15 feet in height, thus staying below the tree canopy. They should also have a light output suitable for a residential area, generally not exceeding about 100 watts.

In addition, residents and property owners should be encouraged to provide ground level lighting, entryway lights, porch lights, etc. While lights alone are no substitute for a comprehensive neighborhood watch/crime prevention program, they are nonetheless one of the least expensive security systems available. Pedestrian-oriented streetlights and properly shielded area lights can also bring a sense of human comfort and safety to such areas.

Policy ON-3: Housing programs, code enforcement activities, and public improvements should be completed in partnership with residents in targeted neighborhood areas. Restoration and rehabilitation, rather than demolition and replacement, should be the preferred course of action whenever feasible.

Recently, the Town’s commitment to neighborhood improvement was brought to the forefront through the creation of the Northeast Neighborhood Plan. The stated purpose of the Plan is to...

A fool can put on his own clothes better than a wise man can do it for him.

Marshall Shaffer, date unknown

... provide direction and guidance to the Town of Wake Forest for future development and improvements in the neighborhood. This plan provides evaluations of the existing conditions found within the neighborhood, and specific neighborhood goals and action items to address issues raised by the neighborhood. In addition, this plan addresses the neighborhood's economic development needs and suggests actions for expanding local services and jobs. The Plan was developed through an inclusive process of local input. Area residents and landowners have been engaged throughout the planning process and have exhibited a sense of ownership for Plan development and implementation. (About the Plan, page 1)

Early in the study process, neighborhood residents identified a wide range of issues in need of attention. Those issues included: improving the community's image and pride, promoting owner-occupied housing¹, improving property maintenance, installing public improvements, reducing crime, improving street lighting, and stopping speeders. Neighborhood plans provide a process by which private citizens and public servants of the town can come together to tackle the improvement needs of the neighborhood in a comprehensive manner. Once the plan is completed, various departments within the Town's administration can work with area residents to focus resources in a coordinated fashion. Ultimately, through a combination of needed capital investments, improved ordinances, targeted programs, and neighborhood self-help, it is hoped that permanent neighborhood improvements can be achieved.

Policy ON-4: New infill development should be architecturally compatible with existing structures, site layout and the streetscape within its vicinity. Efforts by neighborhood associations to establish their own standards for development compatibility should be encouraged. Performance based standards (checklist) rather than discretionary review (opinion) should be employed whenever possible.

It is important that older homes be restored or remodeled and empty lots be developed in a manner that is compatible with the balance of the neighborhood. When restoration is simply not feasible, replacements for dilapidated and unsafe homes should also be sympathetic to surrounding

¹ * More than a decade ago Wake Forest joined Wake County and several other local governments in a consortium to encourage housing rehabilitation among low income home owners. The **Wake County Housing and Community Revitalization Program** provides low interest or deferred loans to "homeowners with fixed or limited incomes to make their homes safer, more energy efficient and able to meet housing quality standards. Eligible repairs and replacements include: roofs, framing, foundation repairs, exteriors, windows and doors, HVAC, electrical, plumbing, etc."(excerpt from program brochure, Feb. 2008)



structures. Architectural compatibility can be measured by several factors, some of which are: massing, rhythm, building proportion and size, setback from the street, building materials used, roof form, type of foundation, presence or absence of porches, placement of garages and outbuildings, use of fences and walls, and landscaping, etc.

In some neighborhoods of Wake Forest, architectural compatibility is pretty much assured. In the town's local historic district, for example, exterior changes must be reviewed and a *certificate of appropriateness* issued to authorize construction activities. In new suburban subdivisions, it is not unusual for houses to be quite similar in size, scale, building materials and placement on the lot. These similarities may be set forth by restrictive covenants, rather than by Town code, but architectural compatibility is nonetheless assured. It follows then, that architectural compatibility should be no less of a priority in other residential areas, including older, less affluent neighborhoods, where homes may be targeted to be torn down and replaced. It is important that new replacement homes fit in well with the homes around them, thereby contributing to neighborhood stability.

Homes in "traditional" older neighborhoods often exhibit classic features such as: two stories, narrow lots, functional front porches, steeply pitched gabled roofs, small front yard setbacks, garages to the rear, etc. Newer neighborhoods, on the other hand, may be dominated by one-story ranch-style homes, wider lots, a small front door stoop, hip roofs, large front yard setbacks, and attached garages. Both types of neighborhoods deserve protection from incompatible structures.

Interestingly, North Carolina state enabling legislation does not favor efforts by local governments to conduct *discretionary design review*¹ of homes located outside an historic district or certified redevelopment area. At first glance, this would appear to rule out design review in most of Wake Forest's older neighborhoods. Not so. Most significant measures of

All city building that retains staying power after its novelty has gone, and that preserves the freedom of the streets and upholds citizens' self-management, ...requires a myriad of gradual, constant, close-grained changes.

Jane Jacobs, 1961

¹ i.e. review based on the *opinion* or *judgment* of a board at their *discretion* rather than simple compliance with a checked off item.



compatibility can be set forth in the Town Zoning Ordinance through *performance standards* (numerical or simple checklist-style standards), which require no discretionary review. Examples include performance standards related to “build-to” lines for front yard setbacks, garage and driveway placement, foundation type, roof form and/or pitch, as well as standards for floor-area ratio, lot coverage, etc. The challenge, then, becomes one of identifying the unifying architectural and site-related elements of neighborhood areas that can be translated into performance-based standards. Obviously, this must be done with full consultation of the property owners in the neighborhood.¹

Policy ON-5 The Town should continually reinvest in the infrastructure of its older urban neighborhoods, including but not limited to: park improvements, sidewalks, street paving and maintenance, street trees, street lights, water and sewer lines, and drainage.

In committing to an on-going reinvestment strategy for its older urban neighborhoods, it is important to remember that these areas are among the most cost effective parts of the community to serve. Property taxes collected over many decades have paid for the infrastructure of these areas many times over. Municipal services provided to these areas, including law enforcement, fire protection, refuse collection, street sweeping and so forth, can be delivered in a highly efficient manner, owing largely to the compact form of the older town. It is only fair, therefore, that these older neighborhoods should benefit from an on-going program of reinvestment commensurate with the cost efficiencies of servicing these areas. Public investment in infrastructure improvements should be focused in the following areas:

Parks: The efficiencies of smaller lot sizes and many residents close at hand call for nearby park facilities at the neighborhood level.

Sidewalks: Sidewalks are more intensively used in older urban areas and, therefore, warrant the highest levels of attention in maintenance and replacement.

Streets: The paving and maintenance of neighborhood streets is often the most visible aspect of a local government’s commitment to the betterment of an area. In general, as streets in these neighborhoods are repaired, the objective of “completing the street” for pedestrian use should be achieved.

¹ Discussion is already underway regarding the creation of a zoning overlay district for the East End area, through which design review of structures in that neighborhood might be instituted. (Conversation with Wake Forest Planning Director, Chip Russell February 26, 2008.)

Street Trees: Street trees were and are an integral part of the design of older neighborhoods. They also provide natural neighborhood and home cooling— especially important in less affluent areas where air conditioning bills may consume a larger portion of household income.

Street Lights: Well placed, pedestrian-oriented street lights are critically important in older urban neighborhoods, where sidewalks are well used, and crime prevention is often of paramount concern.

Water and Sewer Lines: Though less visible than above ground infrastructure, adequate water and sewer lines are essential services.

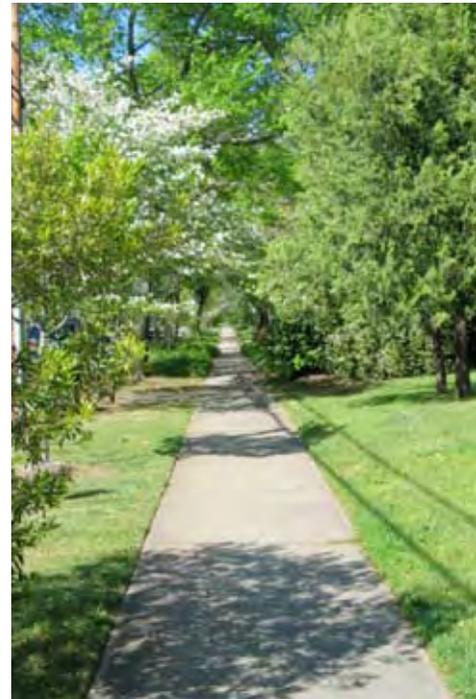
Drainage: Older neighborhoods occasionally become the recipient of unwanted stormwater runoff from new “upstream” development. The best way to prevent this is through careful site plan review. It sometimes becomes necessary, however, to retroactively fix a drainage problem caused by new development.

Policy ON-6: Pedestrian-oriented, designed and scaled stores and services providing basic necessities to residents of the town’s older neighborhoods should be encouraged.

The availability of groceries, pharmaceuticals, hardware, and other necessities continues to be a basic need for residents in some older parts of town. At the same time, small offices and other small businesses can provide suitable employment opportunities within walking distance of the home.

Over the past decade or more, Wake Forest has had some success in employing grant programs, financing mechanisms, development incentives, and ordinance revisions to help revitalize the town’s historic downtown core. The Renaissance Plan (2004), in particular, was a benchmark report, setting an overall direction and tone for public and private improvements in the heart of Wake Forest.

Most recently, downtown Wake Forest witnessed the addition of a new CVS Pharmacy at the corner of Roosevelt and White Streets. Typical of today’s full service drug stores, this new business provides a wide range of products and services, including a line of groceries for everyday needs. Still, there is universal agreement that the downtown area would benefit greatly from the addition of a regular grocery store. Efforts by Town leaders to recruit a new grocery store to the downtown area are on-going. This plan can only commend these efforts and encourage the Town to build on recent successes by facilitating the development of additional, appropriately designed stores and services providing basic necessities in the downtown area.





“Pedestrian-oriented, designed, and scaled” means structures that include a traditional mix of uses oriented to watch over the street, that are within convenient walking distance of many homes, and that complete the street for pedestrians, not just cars. Such stores and services should have operating characteristics compatible with nearby neighborhoods (i.e. limited parking or parking in the rear, sidewalks, compatible lighting and signage, attractive landscaping, appropriate buffering, etc.). In addition to providing essential services to the community’s older neighborhoods, such a policy will help achieve the overall objective of reducing automobile dependency and traffic congestion on town streets.

(Also see Policies on Pedestrian-Oriented, Neighborhood Businesses)

Policy ON-7: Redevelopment and infill projects in older neighborhoods should facilitate mass transit services through recognition of planned transit routes, development mix and density, and accommodation for future transit stop locations.

During the town meetings held for the Community Plan, support for public transit was clearly evident. In fact, among all transportation issues, public transit was the most frequently identified issue receiving support. Among the various eras of development in Wake Forest, the oldest neighborhoods, those built before the advent of automobile, are perhaps best suited to public transit services. These older neighborhoods are also known to have a higher proportion of lower income and elderly residents who would benefit most significantly from the availability of public transit services. Two objectives of Town government, therefore, should be (1) to encourage redevelopment projects to take future public transit into consideration during both planning and construction, and (2) to encourage any plans for public transit to include these older neighborhoods.

In taking over the burden of public and private transportation, both passengers and freight, the motorcar has, with the aid of extravagant public subsidies... wrecked the balanced transportation system that existed a generation ago...

Lewis Mumford, January 12, 1962

Summary of Policies for Older Neighborhoods

Policy ON-1: Concentrated police protection, preferably in the form of foot and bicycle patrols, should be provided as part of a comprehensive strategy for neighborhood revitalization and crime prevention.

Policy ON 2: Pedestrian-level streetlights and appropriately designed private property lights should be encouraged, particularly in the town’s older walkable neighborhoods.

Policy ON-3: Housing programs, code enforcement activities, and public improvements should be completed in partnership with residents in targeted neighborhood areas. Restoration and rehabilitation, rather than demolition and replacement, should be the preferred course of action whenever feasible.

Policy ON-4: New infill development should be architecturally compatible with existing structures, site layout and the streetscape within its vicinity. Efforts by neighborhood associations to establish their own standards for development compatibility should be encouraged. Performance based standards (checklist) rather than discretionary review (opinion) should be employed whenever possible.

Policy ON-5 The Town should continually reinvest in the infrastructure of its older urban neighborhoods, including but not limited to: park improvements, sidewalks, street paving and maintenance, street trees, street lights, water and sewer lines, and drainage.

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Policy ON-7: Redevelopment and infill projects in older neighborhoods should facilitate mass transit services through recognition of planned transit routes, development mix and density, and accommodation for future transit stop locations.

NEWER NEIGHBORHOODS

Summary of Issues

Wake Forest's newer existing neighborhoods refer to those parts of the Town developed primarily during the last three decades, i.e. circa 1980 to present.

Examples of such neighborhoods include:

1980s: Cardinal Hills, Cimarron, Country Club Downs, Crenshaw Manor, Margate, Pineview Estates, Remington Woods, Staffordshire, Tyler Run,

1990s: Caddell Woods, Carriage Run, Crenshaw Hall Plantation, Deacon's Ridge, Edgeford Park, Fairlake, Highgate Park, Holding Ridge, Hunters Crossing, Olde Mill Stream, Pemberley, Prestwicke, Rivers Tone, Royal Mill Apartments, Sedgefield, Smith Creek, Wall Ridge.

2000s: Austin Creek, Avondale, Bennett Park, Bishops Grant, Bowling Green, Dansforth, Flaherty Farms, Heritage, Northhampton, Margots

SUBDIVISION n. A tract of land divided into smaller lots.

NEIGHBORHOOD
n. An area defined by the commonality of its inhabitants or other characteristics.

American Heritage Dictionary

Beginning in the 19th century, we took down our Old world walls and hedges (declared to be “undemocratic”) and spread an uninterrupted green carpet of turf grass across our yards, down our streets, along our highways and, by and by, across the entire continent. Ever since their maintenance has been regarded as an important ritual of consensus in America—even a civic obligation. The citizen who neglects to vote is more tolerated- and far more common- than the citizen who neglects to mow.

Michael Pollan, 1991

Pond, Mews at Legacy Green, Portofino, Reynolds Mill, Richland Hills, Shearon Farms, St Ives, Stonegate, Thornrose, Vernon Park, Villas at Caveness Farms, Wildflower.

Generally, these neighborhoods exhibit many of the ideals of post-war suburban America, including relatively large lots and lawn areas with homes set well back from the street. Outdoor activity spaces are oriented toward the backyard, with the front yard serving primarily an aesthetic function.

The automobile orientation of these neighborhoods can be observed by the prominence of driveways and garages in home and site design. Sidewalks, if present at all, are generally found on only one side of most streets. On-street parking is usually frowned upon, except as necessary for large gatherings. Service and delivery functions, such as for mail, the newspaper and refuse collection, are normally located at the street edge, near the end of the driveway.

Homes in most of these developments are typically within a prescribed, fairly narrow price range and square footage. Average household incomes tend to closely parallel home prices, thus creating low, middle, upper middle and upper class neighborhoods. Streets and blocks are typically long, with few intersections, and are usually curvilinear, to add interest and close vistas without having to create termination points.

Neighborhood parks are usually absent from these areas, owing to the open spaces associated with each large lot. It is not unusual for these large lots to function as their own private “playgrounds”, with a basketball goal in many driveways and a swing set in most back yards.

The larger developments usually have community recreational amenities, most often in the form of a private club with pool and/or tennis courts. A private golf course may also be present in higher end developments. Places of work and shopping tend to be well removed from these areas, thus assuring a uniform residential appearance throughout each development.

One of the common attributes and sales marketing advantages of these spacious neighborhoods may be their predictability and consistency. By assuring uniformity in lot sizes, home prices, square footages, architecture, land use, household incomes, and social structure, each property owner’s standard of home life is also assured, and the investment in the home is seen as protected and secure.

At the same time, the hidden costs of these post-war suburban neighborhoods are well documented, if not widely known by the general public. These large lot subdivisions have generally consumed a great deal of land

per housing unit, thus contributing to the pervasive loss of farmland and open space in America (and Wake Forest) in the latter half of the 20th century. Each larger, wider lot requires greater lengths of streets, sidewalks (if present) water and sanitary sewer lines, storm sewers, and electric, telephone, cable and natural gas lines. These longer utility runs also present greater costs for subsequent maintenance and replacement.

Likewise, the costs of providing services to these spread out areas are also more expensive per household. Included in these higher service costs are mail delivery, police and fire protection, refuse collection, street cleaning, school bus services, and meter reading, among others. With recent substantial increases in the cost of gasoline and diesel, these costs can only go up—significantly.

Environmentally, these large lot subdivisions generate more stormwater runoff per housing unit, due to more street pavement, longer driveways, and oftentimes greater roof area (not to mention paved areas in shopping centers and work places made necessary elsewhere by automobile dependent subdivisions). Of interest, air pollution from suburban-based automobile emissions is causing serious air quality problems in many parts of the country, including the Raleigh/Triangle area.

Socially, near total dependence on the automobile for daily activities tends to isolate people economically and otherwise. This isolation makes children completely dependent upon their parents for transportation to most activities. Similarly, the non-driving elderly become largely confined to their homes, unable to grocery shop or get to the doctor without special assistance from others with a car.

Finally, the generally low development density of these areas also makes it uneconomic to provide public transit service, effectively eliminating that alternative to the automobile. As noted above, as fuel costs continue to escalate, the amount of household income taken up by the daily commute from these residential-only areas in a single occupant automobile may start to become an economic burden of disproportionate size.

Yet, despite all the many hidden costs of large lot, residential-only developments, this is the model of development that has been clearly the most prevalent for the past half century. It remains to be seen whether this model of development can be sustained into the future much longer.

Policies For Newer Neighborhoods

Important note: In setting forth the following policies for newer, existing neighborhoods, it is important to recognize that recommended changes

In our quest for the perfect lawn we waste vast quantities of water and energy, human as well as petrochemical. (The total annual amount of time spent mowing lawns in America comes to 30 hours for every man, woman and child.) Acre for acre, the American lawn receives four times as much chemical pesticide as any U.S. farmland.

Michael Pollan, 1991



Many people would find their own family life replenished if the grandparents, though not under their feet, were near at hand; and above all, the young would be the gainers from this; for there are special bonds of sympathy between them and their grandparents' generation, through its very detachment, which often makes them far more ready to heed their advice than that of their own parents. Who can say how much delinquency and brutalized mischief in our American towns may not be due to the very absence of a warm, loving, reciprocal intercourse between the three generations?

Lewis Mumford, May 1956

will likely be minor or incremental at best. Neither this plan nor any other public policy should seek to disrupt established neighborhoods that were built according to a particular model of development. To do so would be ill advised from both a physical planning standpoint as well as a political perspective. Even so, all neighborhoods can usually benefit from improvements to one degree or another. When such improvements add to the quality of the neighborhood and life there, the residents will usually support them.

Policy NN-1: Architecturally compatible accessory housing, especially for the elderly, should be encouraged on developed lots within existing neighborhood areas,

Over the next two decades (through about the year 2030) the elderly population of the United States is going to grow exponentially. Beyond natural increases in the elderly ranks due to the aging of the population, North Carolina is expected to continue to be a major draw for retirees. Given the quality of life, proximity to health care facilities, and prime location of Wake Forest in the Triangle region, this area could witness a sizeable increase in retirement population.

As the huge baby boom generation moves into its retirement years, the ability of our society to deal with the living needs of the elderly is expected to be severely strained. Suburban subdivisions and retirement communities, initially occupied by the *active-retired*, will eventually be filled with elderly residents *who can no longer drive*. Homes in many of these isolated residential developments will be far removed from shopping and medical facilities. Despite the obvious need, bus service will be difficult to provide, due to the high costs of serving these large lot, very low-density areas. Group housing and nursing homes, costly even today, will be pressed to meet the long-term care needs of the multitudes.

Accessory or "infill" housing provides an opportunity to address this problem. Many residential lots in Wake Forest's suburban neighborhoods average 10,000 to 15,000 square feet or more per lot. The size of these lots affords good opportunity for attractively designed rear yard cottages, "carriage houses" or "granny flats". Larger homes can also be modified to accommodate small, independent senior living spaces within or added on. Regardless of the approach used, quality units can be built quite affordably, because there are *no additional land costs*. Further, the potential income from an accessory unit can supplement the income of the main house family, thereby making both housing units more affordable.

Accessory or infill housing offers several other advantages, both social and economic. First, such housing would provide for the healthy mixing of young and old. The once traditional supportive relationship between the

elderly, the middle aged, and the young would again be restored, passing the wisdom and experiences of senior citizens onto the next generation.

Second, public transit, now clearly uneconomical to operate in the suburbs, could become somewhat more feasible to operate with the addition of more housing units and potential riders in the same area of land. The availability of public transit would not only meet the needs of the non-driving elderly population, but would also encourage working age people and older children to use public transit.

Third, from the builder's perspective, many more affordable housing units can be provided without the cost of building expensive infrastructure (streets, sidewalks, power and telephone lines, etc.) Similarly, the community's costs of servicing the population and *maintaining* the infrastructure would remain relatively constant, despite the larger numbers of people served, and the larger tax base created.

Fortunately, the Town of Wake Forest has positioned itself well to foster the creation of such housing. Most of the Town's residential zoning districts, including the Rural Holding District, R-20, R-15, R-10, Renaissance Area District, and the Wake Forest Historic District allow accessory apartments as a permitted use by right. Given the number of baby boomers soon to be in need of alternative housing, along with the cost of housing generally, this presents a great opportunity for Wake Forest. Even so, widespread acceptance of accessory housing in the town's suburban neighborhoods is not likely to occur overnight. The addition of such housing to an existing residential neighborhood should be done with great care. Well defined design standards for such infill development may be required to make sure that any such living spaces or new accessory structures fit in well with the character of each neighborhood. Consensus among residents as to changes in the restrictive covenants of some neighborhoods may also be necessary.

Yet, as the great bulk of the baby boom generation continues to age over the next two decades, and nursing home costs skyrocket, public support for such housing is likely to grow. Baby boomers who built large houses to raise their families may seek ways to stay on their property by offsetting their housing expenses. Like so many other societal trends, it may take several successful examples to demonstrate how such development can be well done. The sooner the people of Wake Forest begin to think about these and other living arrangements, the better. In the meantime, the Town of Wake Forest is already better off than many other communities with regard to the accessory housing option.

Age segregation is just as bad as income segregation or racial segregation: we need mixed age groups to sustain life even at the simplest levels. A child needs grandparents, or substitute grandparents, as well as parents; he needs to live in a normal human community with the companionship of other children-of different ages, too-as well as those of his own peer groups and family.

Lewis Mumford, January 12, 1962

Policy NN-2: Working in cooperation with neighborhood residents, the Town should support the provision of bikeways and walkways within existing neighborhoods.

Due to the spread out nature of most of Wake Forest’s existing suburban neighborhoods, it is not likely that people in these areas are in the habit of walking to distant services. Studies have shown that the average person may be induced to walk rather than drive on an errand, when the destination involves a walk of five minutes or less. Bicycles, however, offer a reasonable alternative and can cover a much greater distance than the pedestrian in a typical five-minute period. Wake Forest’s relatively moderate year round climate, general lack of ice and snow, and gently rolling terrain make bicycles a reasonable alternative.

Of note, the Town of Wake Forest recently adopted a new Bicycle Plan. The bike plan, begun in 2006 and adopted in 2008, was prepared in cooperation with the North Carolina Department of Transportation. Among other things, the plan identifies those roads in town most favored for bike-way improvements.

While having a well-conceived bikeway plan in place is a good foundation, much will need to be done before bicycle transportation can become a significant travel option in Wake Forest. Public perceptions of the bicyclist as an unwanted intruder in the “domain of the automobile” will need to change. This is a huge task. A major area-wide educational program will need to include effective signage, and the support of elected officials, civic groups, school programs, and other initiatives.



Further, the disconnected, non-continuous street system of many of Wake Forest’s suburban neighborhoods presents a particular challenge. If possible, opportunities to link existing adjoining neighborhoods with biking or walking paths should be pursued. This might require an occasional mid-block or end-of-the-cul-de-sac bicycle connector where an existing utility easement, greenway, or other reserved open space is already in place.

Perhaps most obviously, bike routes and where possible, bike lanes will need to be designated and/or built in accordance with the Bicycle Plan. Such routes and lanes must connect significant destinations, such as shopping areas and work places, with continuous safe travel routes along the entire length of travel.

Regarding walkways or sidewalks, most of the Town’s pedestrian facility improvements have focused on major roadways and collector streets. Usually, these streets have sufficient right of way width already in place for sidewalks, thereby avoiding the need to undertake costly and time-consuming ROW acquisition. After the Town has completed sidewalk

improvements for these major streets, it should then begin to address smaller local streets. Many suburban neighborhoods might welcome the addition of such facilities, particularly where residents perceive a threat to the safety of their children from today's high-speed drivers. Increases in property values may also offer some appeal to the retrofitting of existing suburban neighborhoods with sidewalks. Regardless, any such sidewalk or bikeway connections would require considerable public input from the residents of affected neighborhoods.

*(More on this in the **Bikeways** section and the **Sidewalks** section).*

Policy NN-3: Architecturally compatible, residentially scaled office and institutional development may be permitted along major streets forming a boundary of a neighborhood planning area.¹ Pre-existing residential properties may be converted when, in the judgment of the board, such homes have become unsuitable for residential occupancy. Whenever possible, the exterior residential appearance of the existing structure shall be retained while the interior may be remodeled.

Note: This policy should be applied judiciously and with considerable restraint. If employed in circumstances and without the specific conditions prescribed below, there is concern that it could promote unwanted strip development. At the same time, there may be situations where a planned transition from “stressed” residential uses to “low impact” office and institutional development may work well to rectify an untenable situation.

This policy is intended to address a situation that sometimes occurs when a formerly quiet rural or suburban roadway becomes, with increased urbanization, a well-traveled, perhaps multi-lane thoroughfare. As the road is widened, front yard setbacks are reduced, bringing traffic closer to the home. When this happens, existing home sites fronting on the roadway may be exposed to levels of traffic and noise that are no longer suitable for residential living. Examples of roads in Wake Forest experiencing this problem, either now or likely in the future, include sections of South Main Street and Wait Avenue/Durham Road.

Often, when a formerly quiet road transitions to a heavily traveled thoroughfare, one of two undesirable scenarios occur:

Undesirable Scenario 1: Gradual downward spiral of property upkeep and property values. If no action is taken, residential structures along the



¹ For more information see the chapter entitled “**Neighborhood Planning Areas**”.

roadway often go from being primarily owner-occupied to being primarily renter-occupied. While some rental property owners will try to keep their property up, others will let it decline. The quality of renters will also decline, and the downward spiral will continue, further affecting the stability of residential property values along the roadway, and in the area at large.

Under this undesirable scenario, the rental incomes that residential structures along the roadway produce generally become insufficient to pay for their proper upkeep. Eventually, declines in the value and upkeep of these structures have a negative effect on both the perceived and real value and stability of homes along the roadway, as well as nearby homes off the roadway. Property appearances also create a negative image for travelers entering the community along these declining roadway sections.

Undesirable Scenario 2: Transition to intensive commercial development. If, on the other hand, intensive commercial activity is allowed to displace existing single family homes along the roadway, the bright lights, noise, nighttime activities, and traffic generated can make nearby residential properties unlivable, increase cut through traffic and traffic volumes in the adjoining neighborhood planning area, and cause a downward spiral, affecting the stability of residential property values and the viability of nearby residential areas.

Under this undesirable scenario, strip commercial development is permitted to displace existing single-family homes along the roadway. Such commercial development brings with it all the objectionable impacts associated with intensive commercial activity. Allowing intensive commercial activity to occur in the vicinity of other existing homes causes a steady decline in the value of residences in the area. Commercial strip development along these roadway sections also creates a negative image for travelers entering the community and contributes further to traffic congestion.

Clearly, neither of these two scenarios is a desirable outcome. Rather, this plan suggests a third, preferred scenario which avoids many, if not most, of the undesirable consequences outlined under these two unwanted scenarios.

As the policy suggests, appropriately designed and scaled office or institutional uses along the periphery of a neighborhood planning area can serve as a useful buffer between the heavily traveled thoroughfare and the homes to the interior of the neighborhood planning area. Such uses can also provide the opportunity for jobs within walking distance of nearby residences.

“Architecturally compatible and residentially scaled” means that any such non-residential uses along the periphery of the neighborhood planning

area must be of a type and design that will be compatible with nearby residential properties. Measures of compatibility can be specified in the zoning ordinance, and applied most effectively through the Town's Conditional Use District (CUD) zoning process. Provisions applied through a CUD zoning might include, for example:

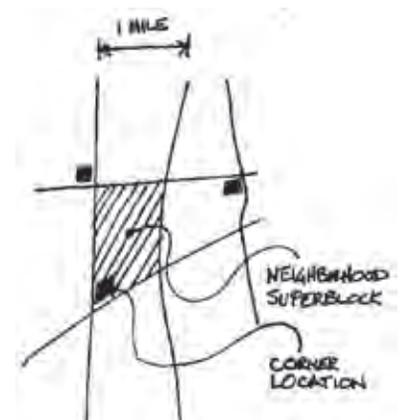
- No bright lights
- Permitted use(s) which typically, do not have nighttime hours
- Permitted use(s) which typically generate only low traffic volumes
- Architecture, (whether of new construction or of rehabilitation) that is of a scale and design sympathetic to a residential area
- No intensification of floor/lot area ratio
- Retention of trees
- Heavily landscaped parking areas
- Carefully controlled access

Policy NN-4: Existing, less intensive development (i.e. residential or office uses) located at the intersection of two or more major streets may be allowed to undergo an orderly transition to appropriate commercial use, provided that residential use is no longer viable and that careful site design will allow for compatibility with adjoining areas.

One prevailing characteristic of many newer existing neighborhoods is the absence of basic services or employment opportunities within walking distance of residences. This lack of services and work places contributes further to total automobile dependency in most suburban subdivisions. It also deprives families and their children of the full range of daily activities which makes for a complete quality of life.

As noted in the chapter on Neighborhood Planning Areas, the addition of commercial and other services at the intersection of major streets forming the corners of a neighborhood planning area can be helpful in bringing such services closer to area residents. It should be noted however, that in contrast to Policy NN-3 above, such *commercial* (as opposed to *office and institutional*) development is limited to the corners of the neighborhood planning area only. This allows traffic from the commercial services to be dispersed on the intersecting major streets and diminishes the possibility that traffic will be tempted to cut through the adjoining neighborhood planning area on local residential streets.

Several conditions are in order to assure that such commercial development is a good neighbor, rather than an objectionable nuisance. First, the





size and scale of commercial or other non-residential uses must be tailored to the specific location. While some locations are appropriate for larger scale shopping or work places, other locations will call for relatively small enterprises of a residential scale.

Second, the specific design of the non-residential use(s) will be important in assuring that the new development is compatible with nearby residential areas. Not surprisingly, many of these requirements are similar to those noted under Policy NN-3: Signage must be limited in size and height. Lighting must be carefully shielded to prevent spilling over into the adjoining neighborhood. Street access must be carefully planned to prevent any demand for cut through traffic in the adjoining residential area.

If all of the appropriate precautions are taken, the addition of, for example, an appropriately located and designed grocery store can be a welcome asset. Inconvenient, time-consuming trips to a distant shopping center for a loaf of bread, a dozen eggs or a gallon of milk can be avoided. At the same time, neighborhoods need not be subjected to the bright lights, plastic signage, unadorned architecture, and barren parking lot that have come to be associated with the typical convenience store or “big box” retailer. Commercial and retail services can be attractive and of reasonable size, as well as convenient.

Summary of Policies For Newer Neighborhoods

Policy NN-1: Architecturally compatible accessory housing should be encouraged on developed lots within existing neighborhood areas, especially for the elderly.

Policy NN-2: Working in cooperation with neighborhood residents, the Town should support the provision of greenways, bikeways and walkways within existing neighborhoods.

Policy NN-3: Architecturally compatible, residentially scaled office and institutional development may be permitted along major streets forming a boundary of a neighborhood planning area.¹ Pre-existing residential properties may be converted when, in the judgment of the board, such homes have become unsuitable for residential occupancy. Whenever possible, the exterior residential appearance of the existing structure shall be retained while the interior may be remodeled.

Policy NN-4: Existing, less intensive development (i.e. residential or office uses) located at the intersection of two or more major streets may be allowed to undergo an orderly transition to appropriate commercial use, provided that residential use is no longer viable and that careful site design will allow for compatibility with adjoining areas.

¹ For more information see the chapter entitled “Neighborhood Planning Areas”.

Note: This plan seeks to tailor policies to specific parts of the Town, usually in accord with the age, and therefore predominant development pattern and style of each area. There is no intent, however, to preclude the application of policies listed, for example, under “Older Neighborhoods” to similar situations that may arise in “Newer, Existing Neighborhoods”, and vice versa. Situations could easily be imagined, for example, where policy statements ON-4 (Architectural Compatibility) and ON-7 (Public Transit) in the “Older Neighborhoods” section, would also be applicable in the “Newer Neighborhoods” section.

FUTURE NEIGHBORHOODS

Summary of Issues

Changing people’s perceptions about what constitutes a quality neighborhood is probably one of the biggest issues in town planning, and in Wake Forest today. The majority of the baby boom generation and their offspring have grown up with suburban sprawl as the norm for their generation. Indeed, huge numbers of “Generation X” children, having grown up in the expansive new growth areas of Florida, California, and Arizona, have never seen a real downtown, except in the movies. How fortunate is the Town of Wake Forest to have an authentic historic downtown area at the heart of the community.

Many “new urbanists” believe that the past fifty years of automobile-oriented sprawl is actually an aberration from the norm. They claim that the preceding two hundred fifty years of largely pedestrian oriented development will eventually return as the preferred model. The ability of automobile-oriented growth to sustain itself is dependent, to some degree, upon cheap sources of energy, particularly crude oil. As this is being written, the price of a barrel of crude oil has reached an all time high— \$112 per barrel, up from \$10 per barrel one decade ago and \$60 per barrel just one year ago.¹

But even as automobiles become more efficient, and alternative sources of energy are developed, there are indications that the whole sprawling system of development is starting to self-destruct. Driving distances and commuting travel times continue to increase with each passing year. Traffic congestion on Wake Forest’s major roadways (as well as in most urban areas) has been growing at many times the rate of population increase. People tired of sitting in traffic may soon “connect the dots” and reject the inefficient, separation-of-use growth model of the past fifty years. They

¹ www.InflationData.com, March 2008

may not completely understand why it is happening, but they clearly don't like it.

In addition, unhealthy air pollution levels have caused the US Environmental Protection Agency to curtail federally subsidized road construction in several urban areas. Atlanta, for the past quarter century a major growth dynamo in the South, has had its business prospects dimmed by EPA's actions. Similar threats may soon be facing the Triangle area, as car-produced ozone levels are more frequently in violation of federal air quality standards.

As traffic congestion continues to choke the economic growth prospects for whole regions, it is hoped that the average citizen is becoming better informed and increasingly receptive to better ways to manage growth. Likewise, the business community, including homebuilders and real estate interests in particular, is beginning to recognize that unless something is done, anti-growth initiatives and development moratoriums will come to the forefront.

Even so, the knowledge that "adding another lane on the highway does not solve the problem of traffic congestion" has yet to emerge in the mainstream news media. Despite the inroads that mixed use development is making among some builders, the connection between mixed use development and reduced auto dependency is not yet part of the public's conventional wisdom. For Wake Forest, where the majority of its remaining land will be taken up by "Future Neighborhoods", the implementation of newly emerging approaches to land use and development will be critical.

Policies for Future Neighborhoods

Policy FN-1: To minimize sprawl and land consumption, and to promote a walkable community, most new neighborhoods should be compact in form.

This is a broad policy statement, which is further detailed in the specific policies following in this section. A compact neighborhood is a more densely developed neighborhood. Yet the word density is an abhorrent term to many citizens and community leaders who have, for three generations, been taught to associate density with the evils of the industrialized city. Reid Ewing, of Rutgers University has described this perception very well.

"The mere mention of density sends shivers down the spines of many residents and elected officials. In this regard, density has gotten a bum rap. People confuse density with crowding, density being the number

of dwelling units per unit area and crowding the number of persons per room in dwelling units. Crowded conditions have no redeeming value, while high density living can be very desirable, as indicated by the high housing prices and rents commanded by the Georgetowns (and Charlestons) of this world.

People confuse high density with high-rise. High densities can be achieved with small-scale buildings by raising lot coverages to 50, 60, or even 70%. Conversely, high-rise buildings afford only moderate densities if surrounded by acres of parking and lawn. Pedestrians are comfortable with small-scale buildings and high lot coverages. They are uncomfortable with high-rise towers and low lot coverages. ...Much of the criticism of high-rise living and its socially alienating effects is not due to its high density but to its low density at ground level, where nearly all human interaction must occur.

Finally, people confuse perceived density with measured density. We know, for example, that densities are perceived to be lower where there is open space nearby, where blocks are short, and where buildings are of moderate height.

The weight of available evidence points to the importance of density in promoting walking and transit use. Higher densities mean more residents or employees within walking distance of transit stops and stations. They mean more street life and the added interest and security that goes with having more people.¹

Thus, the many advantages of a compact neighborhood must be re-discovered.² Housing can be made more affordable, in that land and infrastructure costs on a per unit basis will be less than under large lot zoning. Such new neighborhoods will lend themselves to walking, biking and the use of public transit. Front yards and street trees will take on new importance as the street is returned to a functional space for pedestrians too. Neighborhood safety will be heightened by the security of having neighbors close at hand. The costs of providing public and private services will be reduced by the inherent efficiencies of a compact neighborhood. As a result, Wake Forest's new neighborhoods will be more affordable, walkable, attractive, functional, secure, and easier to serve.

It is not an easy matter to combine the charm of town and country; the attempt has often led rather to the destruction of the beauty of both. A certain concentration and grouping of buildings is necessary to produce the special beauties of the town, and this is inconsistent with the scattering of buildings which results from each one being isolated in its own patch of garden.

Raymond Unwin, 1909

1 Reid Ewing, *Pedestrian & Transit Friendly Design*, Rutgers Univ, March 1996, pp 2-5.

2 Ewing has also noted that the evils of overcrowding, so well understood at the turn of the century, almost always referred to the number of persons per housing unit, not the number of housing units per acre. Further, the condition of a neighborhood's housing is more often than not closely associated with household incomes of the residents in that neighborhood, not housing density.

It is hoped that the absurd restrictions which require all streets to be of a certain minimum width, whatever their purpose, will be modified, and that it will become possible again to make reasonable use of narrower streets and passages for pedestrians.

Raymond Unwin, 1909

Policy FN-2: New neighborhood streets should be no wider than necessary to serve their intended purpose.

For much of its history, Wake Forest, like many other cities in North Carolina, required a 60-foot right of way and 35 feet of pavement from curb to curb— regardless of what the anticipated use of the street might be. This policy resulted in higher initial street construction costs, higher maintenance and cleaning costs, and increased storm water runoff. No doubt, these unnecessarily wide streets also result in higher neighborhood temperatures in summer, particularly when there are not mature street trees in place to block the sun’s rays from the asphalt.

In recent years, many design professionals, builders, developers, and municipalities have begun to advocate making streets no wider than necessary to serve their intended purpose. The Town of Wake Forest is among this progressive group. The Town’s current standard for right of way and pavement width on minor streets is for 50 feet of right of way and 25 feet of pavement from back of curb to back of curb.

As mentioned above, narrower streets have several advantages. In new developments, for example, narrower streets mean less land consumption and lower initial construction costs. In a competitive building environment, these savings to the builder are ultimately passed along to the homebuyer. Narrower streets have also been shown to slow drivers down as they pass through a residential area. And, in contrast to wider streets, narrower streets generate less stormwater runoff, less summer heat, and lower maintenance costs.

*(For more on the proper use of narrow streets, see the **Minor Streets** section.)*

Policy FN-3: Future transit service corridors should be identified and reinforced by development mixtures and densities appropriate for transit services.

New neighborhoods should be designed to incorporate transit stops as an integral part of their layout. Once transit routes have been determined, the Town and the development community should work to support and reinforce these routes. Neighborhood oriented services, for example, and higher density residential development should be clustered around designated transit stops, or at least designed to allow for a future transit stop when the opportunity presents itself.

Policy FN-4: New neighborhoods should include one or more neighborhood centers or focal points in each neighborhood planning area.

Each neighborhood planning area should have one or more focal points that may include, for example, a community building, central open space, an elementary school, and one or more places of worship. (Also see next two policies, and the *Future Commercial Areas* section.) Ideally, these focal points should be located to the interior of the neighborhood planning area within a five to ten minute walk of any home in the area. Such focal points provide a necessary place for residents of the various neighborhoods in the neighborhood planning area to come together for community gatherings. More importantly, they provide opportunities for informal meetings and social exchanges in day-to-day living—errands, walking and bicycling.

*(Also see **Parks, Open Space and Recreation** chapter concerning the provision of adequate open space in proportion to the acreage being developed or number of new housing units being created.)*

Central places must be chosen that will not only offer adequate architectural possibilities, but will also be suitable in character and position to form centre points in the plan, at which it may be reasonable to hope the common life of the city or district will find a focus.

Raymond Unwin, 1909

Policy FN-5: Neighborhood serving businesses shall be encouraged in new neighborhood designs.

Established neighborhoods customarily view new commercial development in their vicinity as an intrusion. Given the form of new commercial developments over the past several decades, their objections are usually justified. The typical large building scale, monolithic, boxy design, bright lights and signage, expansive parking areas, and traffic of today's standard commercial development are enough to frighten any homeowner nearby.

As noted previously, however, not all commercial development need be ugly and offensive. In new neighborhoods, small scale shopping and work places can be incorporated into the fabric of the community if they are carefully located and designed from the outset. The objective should be to contain as many small errands as possible within the bounds of the neighborhood planning area, rather than requiring an automobile trip on a collector or thoroughfare. (For much greater detail on this policy, see section on *Future Small Scale, Pedestrian-Oriented Neighborhood Businesses*)¹

¹ The objection is sometimes raised that corner grocery stores are a haven for drug dealing and other sordid activities. This is sometimes true. Invariably, however, these problems are not caused by the grocery store, but rather the economic condition of the neighborhood it serves. In an economically healthy neighborhood, where incomes are stable, a corner store is no more hazardous than a community clubhouse or pool, and serves a real community need.

There is nothing whatever in the prejudices of people to justify the covering of large areas with houses of exactly the same size and type. The growing up of suburbs occupied solely by any individual class is bad, socially, economically, and aesthetically. It is due to the wholesale and thoughtless character of town development, and is quite foreign to the traditions of our country; it results very often in bad municipal government and unfair distribution of the burdens of local taxation, misunderstanding and want of trust between different classes of people, and in the development and exaggeration of differences of habit and thought; it leads, too, to a dreary monotony of effect, which is almost as depressing as it is ugly.

Raymond Unwin, 1909

Policy FN-6: Amenities centers (e.g. club house, tennis courts, pool) in new developments should be placed in a central location for convenient, pedestrian access by neighborhood residents. Placing such centers at the perimeter or entrance to the neighborhood for marketing or buffering purposes is to be discouraged.

In today's real estate development industry, amenities centers are too often placed at the perimeter of the development, especially near the primary entrance. From a marketing perspective this is intended to present a good impression and create instant market appeal to prospective buyers. It may also be argued that an amenities center located on the periphery of the development serves as a buffer from a major highway or other adjoining land use. Finally, the amenities center itself may be viewed as an objectionable land use, to be separated from the "quiet peace" of the neighborhood.

Unfortunately, such placement runs contrary to good, pedestrian oriented neighborhood planning. At a time when great emphasis should be placed on neighborhood walkability, such placement encourages residents to drive their cars to the amenities center. At a time when a fine grained mix of uses is to be encouraged within the neighborhood, such placements foster homogeneity and separation of land uses. Thoughtful design and use of other forms of transition and buffering can overcome the need for a stark separation of uses. Instead of exposing the amenities center at the entrance to the development, the same center can be strategically placed to terminate a grand vista well after entering the development. The ultimate payoff is a better designed, walkable neighborhood that enhances the quality of life for generations of residents, and is an asset for the entire community.

Policy FN-7: As new neighborhoods are developed, a mixture of housing types, sizes and prices shall be encouraged within the bounds of each neighborhood planning area.

As noted previously, present day patterns of social and economic segregation are caused, in some measure, by the way in which "single price range/one type only" housing is developed and marketed. This results in a town in which people of different ages and incomes are socially isolated and alienated from one another. This sorting of people by age and income has far-reaching, negative social and political consequences that are beyond the scope of this brief section to address.

In any event, one objective of this plan is to encourage a mixture of housing types and prices within each neighborhood planning area. This can be accomplished in two ways. First, housing units of different types can be designed into the layout and mix of a single development, so long as

the overall scale and design of the buildings in which the units are located is compatible (e.g. single family homes, duplexes, town houses, garage apartments etc., all of appropriate height, bulk, and style of architecture).

Second, no one neighborhood planning area should focus on a single price range and style of housing (e.g. all single family, \$275,000 to \$325,000). Such single use, narrow price areas create large, homogeneous blocks of uniform housing (and by default, race, age, family type, etc.) for an entire area of the town.

One good way to allow for a variation in housing types and prices is to employ a community park or other amenity as a common central focal point around which different housing developments can be arranged. This “pin-wheel” format satisfies the entrenched market demand for separation of housing types by value, while encouraging community interaction among residents of varied economic strata.

Policy FN-8: Higher density housing projects, such as apartment complexes and condominium developments, should be located adjoining places of work, shopping and public transit. Access to such higher density housing should not be through a lower density housing area. Higher density housing may often act as a transitional use between offices or shops and lower density housing.

This policy recognizes current development practices and real estate market forces that drive the development of relatively large scale apartment and condominium complexes. Even in a relatively small town like Wake Forest, it is not unusual for such “multi-family” developments to contain one hundred or more housing units. At the same time, the sizeable parking areas, traffic volumes and other concentrated activity associated with such projects usually create considerable opposition from nearby single family residential areas. Apartment complexes thus usually fall into the NIMBY (Not In My Back Yard) category.

With proper location, access and design, however, such multi-family projects can contribute positively to the housing mix in a community, and achieve beneficial densities that make the town work. In terms of location, there should be a strong complementary relationship between multi-family development and places of work and shopping. In this way, the residents support the stores and may provide employees for the work places. At the same time, the shopping and work places offer jobs and shopping close to home. The whole community benefits by having fewer automobiles on the road at any one time, commuting to work or running errands for shopping.



For a child to get a true sense of the world that he lives in, he should at least have a glimpse, on his walk to school, either of nature plain, . . . or of man's work, in the form of workshops, minor industrial operations, markets. The activities that serve a neighborhood's life should not be too severely segregated: they should be at least within a school child's walking distance; and running errands and fetching should be part of his experience of life.

Lewis Mumford, January 12, 1962

In terms of access, it makes a great deal of sense to have a convenient transit stop at or very near each major multi-family development. Density makes transit work. Also, it is critically important that multi-family developments have direct access to a thoroughfare, to minimize travel desire to or from the project on minor residential streets. Automobile access to a large multi-family development through a lower density residential area should be avoided.

In terms of design, multifamily developments should have many of the same features favorable for community interaction as found in a single-family neighborhood. Functional front porches can soften the building facade, encourage neighborly dialogue, and put more eyes on the street. Townhomes pulled up to a street help create an attractive street space, rather than the sterile parking lot found in so many "modern" apartment complexes. Homes built up off the ground provide for necessary privacy and improve "defensible space". Sidewalks aid community interaction and encourage pedestrian movement.

Policy FN-9: New neighborhoods should be connected to other neighborhoods, shopping, and work areas within the neighborhood planning area. Gated communities should not be permitted in Wake Forest as they impede travel and limit connections between areas.

Each new neighborhood should not be viewed as an isolated island or pod, but rather as another element of the intricate tapestry that makes up a neighborhood planning area. The streets, bikeways, and sidewalks of one neighborhood should be connected with those of adjacent neighborhoods. This will allow children to walk and bike to school, or to a friend's house, or to other activities, etc. using lightly traveled neighborhood streets. Adults too, should be able to walk or bike to work by passing through quiet residential streets.

By developing a fully connected honeycomb or grid system of local streets, a child or adult should be able to travel anywhere within a one-half to one square mile neighborhood planning area without having to cross or use a major thoroughfare. At the same time, the pattern of the street layout, pavement width, intersections, etc. can be carefully designed to discourage cut-through automobile traffic. (See illustration from the section entitled *The Neighborhood Planning Area*)

For all of the above reasons, isolated, disconnected neighborhoods should not be allowed in Wake Forest. Similarly, gated communities—those that keep all non-residents out—should also not be welcomed in the town.

Policy FN-10: Street designs in new neighborhoods should give equal priority to the pedestrian and the automobile.

Most streets in Wake Forest's suburban neighborhoods cater primarily to the automobile. Wide streets, large turning radii at street corners, 35 mile per hour speed limits, lack of sidewalks, and disdain for on-street parking (which buffers the sidewalk), leave the pedestrian at the mercy of the automobile. Needless to say, if a neighborhood's design is to encourage travel by means other than the automobile, its streets should be detailed to be pedestrian and bicycle friendly. Such details include a complete system of sidewalks, smaller curb radii at corners, a well connected pattern of streets with few or no cul de sacs, pedestrian scaled street lights, houses pulled up to the street to create a street space, and street trees to provide shade, comfort and sense of enclosure.

Policy FN-10 states that all new neighborhoods should have streets that cater equally to the pedestrian and the automobile. This "complete streets" policy requires that Town standards be amended and implemented as necessary to make this happen.

Policy FN-11: New neighborhoods should recognize bike routes and greenways at the time of development.

For bike routes and greenways to be most effective, they must establish continuous corridors for travel movement. For Wake Forest, an *Open Space and Greenways Plan* has been prepared which identifies corridors for future greenway development. The *Open Space and Greenways Plan*, included by reference as an element of this Community Plan, should continue to be recognized when new neighborhoods are built in the path of a proposed greenway corridor. This is analogous to the reservation of designated thoroughfare corridors during development plan review.

The same principle should apply to proposed bikeway corridors. As noted previously, the Town recently completed a new *Bicycle Plan*. The plan was adopted in 2008, after consultation and approval by the NCDOT. The *Bicycle Plan* should be employed in a manner similar to the *Open Space and Greenways Plan*. Commendably, Wake Forest already has in place an open space/greenway dedication provision in the Town's development review and approval process, providing a mechanism by which greenway corridors may be reserved at the time of development. Even when specific greenway or bikeway corridors are not anticipated within or adjacent to a new development, provision should still be made for on-street or off-street bikeways connecting to adjacent developments.

In the mid-nineteenth century, when row houses predominated, the street was the primary open space, and it performed an important recreational function. By 1920, however, most urban residents and virtually all highway engineers saw streets primarily as arteries for motor vehicles.

Kenneth T. Jackson, 1985



Summary of Policies for Future Neighborhoods

Policy FN-1: To minimize sprawl and land consumption, and to promote a walkable community, most new neighborhoods should be compact in form.

Policy FN-2: New neighborhood streets should be no wider than necessary to serve their intended purpose.

Policy FN-3: Future transit service corridors should be identified and reinforced by development mixtures and densities appropriate for transit services.

Policy FN-4: New neighborhoods should include one or more neighborhood centers or focal points in each neighborhood planning area.

Policy FN-5: Neighborhood serving businesses should be encouraged in new neighborhood designs.

Policy FN-6: Amenities centers (e.g. club house, tennis courts, pool) in new developments should be placed in a central location for convenient, pedestrian access by neighborhood residents. Placing such centers at the perimeter or entrance to the neighborhood for marketing or buffering purposes is to be discouraged.

Policy FN-7: As new neighborhoods are developed, a mixture of housing types/sizes/prices should be encouraged within the bounds of each neighborhood planning area.

Policy FN-8: Higher density housing projects, such as apartment complexes and condominium developments, should be located adjoining places of work, shopping and public transit. Access to such higher density housing should not be through a lower density housing area. Higher density housing may often act as a transitional use between offices or shops and lower density housing.

Policy FN-9: To enable walking and biking, as well as a beneficial network of local streets, new neighborhoods should be connected to other neighborhoods and, where appropriate, shopping and work areas. Careful street layout and design review should be employed to deny opportunities for cut through traffic. Gated communities should not be permitted in Wake Forest as they impede travel and limit connections between areas.

Policy FN-10: Street designs in new neighborhoods should give equal priority to the pedestrian and the automobile.

Policy FN-11: New neighborhoods should recognize bike routes and greenways at the time of development.

Commercial Areas

As addressed in this Community Plan, commercial areas include a broad spectrum of non-residential activities. This category includes not only customary retail establishments, but also offices, workshops, small-scale assembly operations, and other commercial enterprises. Also, for purposes of analysis and policy development, this chapter distinguishes between existing commercial properties, those developed in Wake Forest up to the present day (*Existing Commercial Areas*), and those commercial areas not yet conceived or built (*Future Commercial Areas*). Commercial areas not yet conceived or built are further broken down into *Policies For Future Large Scale Commercial Areas* and *Policies for Future Small Scale Neighborhood Businesses*.

*Note that the very oldest commercial areas in Wake Forest, those developed before World War II, are almost exclusively located in the downtown area. These commercial properties are addressed in this plan under an especially dedicated chapter entitled **Downtown Wake Forest**.*

“Enforce rules and regulations on incoming businesses so they conform to the small town image.”

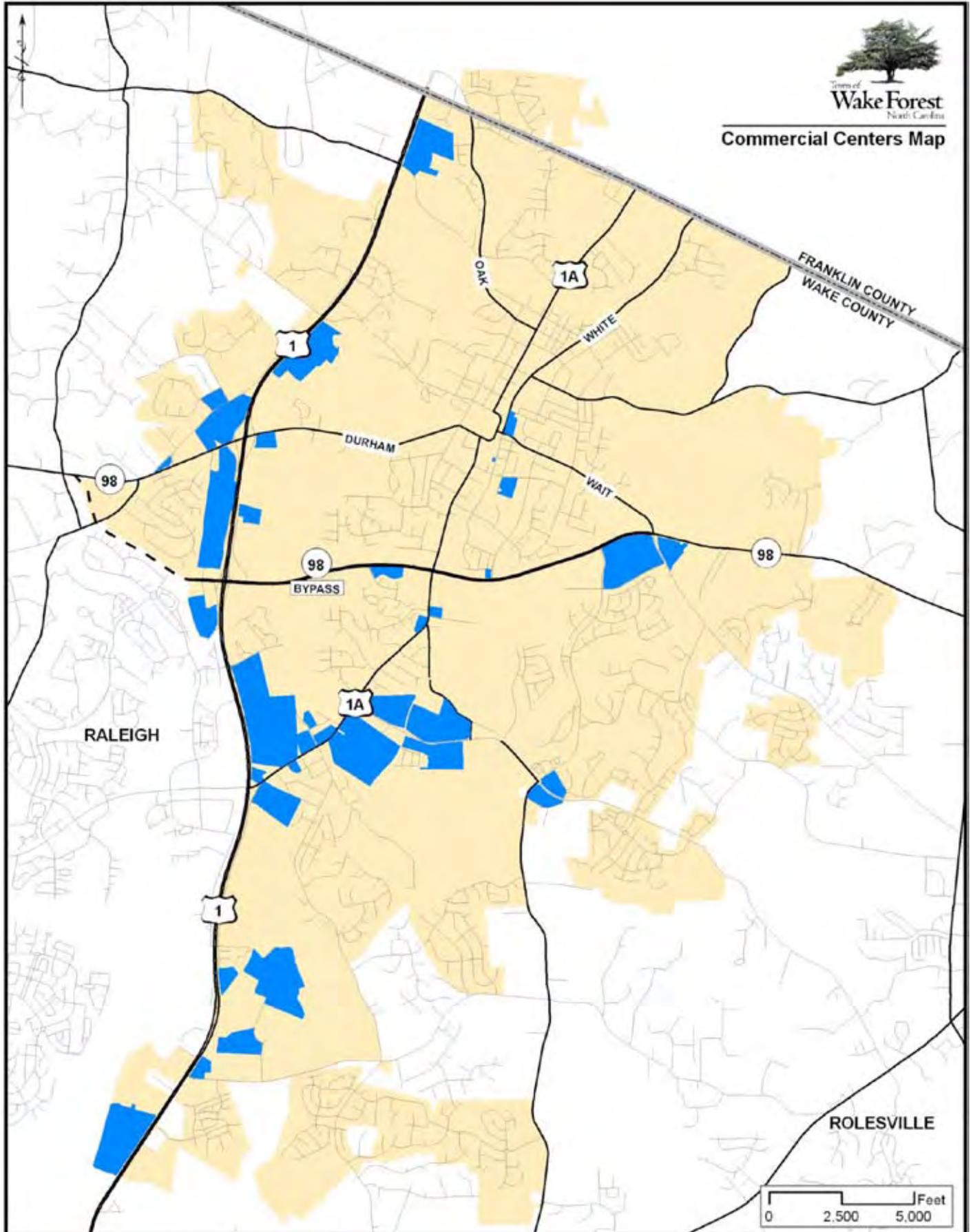
Citizen comment at the Second Town Meeting for the Community Plan, November 15, 2007

EXISTING COMMERCIAL AREAS

Summary of Issues

In the community meetings held for this plan, loss of community character along the town’s major gateway corridors, as well as the proliferation of big box retailers, were identified by the public as among the most objectionable elements of Wake Forest’s *unwanted future*. These concerns were undoubtedly prompted by much of the town’s rapidly expanding commercial base of the past three decades. Examples include older highway commercial strip developments along Capital Boulevard and South Main Street, as well as more recently developed areas in the form of “master planned” shopping centers. In recent years, commercial development has continued to focus especially along the town’s major thoroughfares, reinforcing development patterns that require auto dependency. (See *Commercial Centers Map*, next page)

What is it about these commercial strips that raise the ire of so many citizens in Wake Forest, and also in nearly every other community in America? To be sure, it is a love-hate relationship; people want the services offered, but do not like the effect they have on the image of their community. Most of the negatives associated with new commercial development may



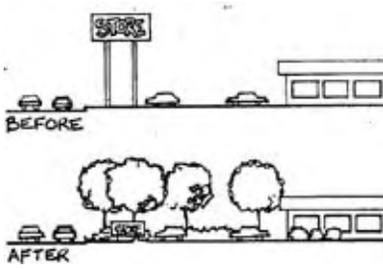
be directly attributed to the dominant influence of the automobile, and the inhuman scale it fosters. These factors include large expanses of asphalt parking lots (designed to accommodate the largest peak-season crowds), large volumes of traffic entering and exiting these developments onto adjacent crowded streets, plasticized, overdone signage, and an overall scale and style of architecture that is incompatible with a small town image.

To its credit, Wake Forest has done a better job than most communities in mitigating the visual and functional problems associated with recent, automobile-oriented commercial development. The South Main Street (US 1A) corridor between Capital Boulevard and downtown Wake Forest exemplifies the Town's effort in this regard. Once a quiet residential gateway into the heart of Wake Forest, South Main Street has been undergoing a gradual transition into an automobile-oriented commercial strip. Town appearance standards have done much to tone down the formula based architecture and signage normally associated with some of the franchise-type businesses along this stretch. If it were not for the Town's progressive site plan review and development standards, the situation could be much worse. Even so, despite the Town's determined efforts, area residents do not like that the original small town character of this historic gateway into Wake Forest is slowly being lost.

In response to concerns about Wake Forest's image as expressed along its major roadways, the Town has commissioned special highway corridor plans for Capital Boulevard (US 1) and more recently NC 98 (the new bypass). These plans include well thought out recommendations to address many of the problems associated with the development of these major thoroughfares. The Town has also established a special highway corridor overlay district in its zoning ordinance, though it has never been applied on the Town's zoning map. The Town may want to revisit the potential benefits of putting the overlay district into effect along major roadways entering Wake Forest, including the South Main Street corridor. Regardless, it should not come as a surprise that several of the policies contained in this section on newer, existing commercial areas, are wholly consistent with good highway corridor planning practices.

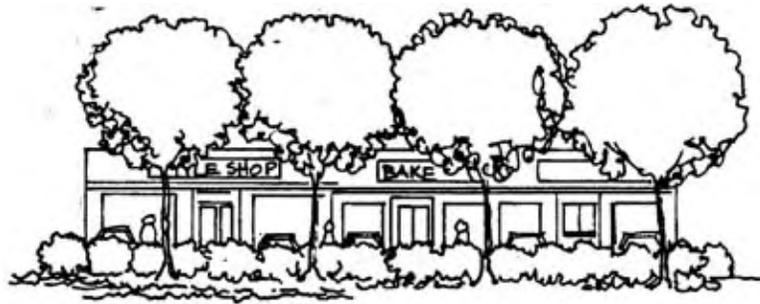
Policies For Existing Commercial Areas

Policy EC-1: The Town should encourage appropriate landscaping and reconfiguration of large, existing unlandscaped parking areas. Landscaped pedestrian walkways from car to store or across a parking area should also be encouraged. Efforts to reduce excessive numbers of parking spaces should generally be supported.



Among the factors that contribute most to the visual blight of commercial strips is the “sea of asphalt” parking lots that flank the roadway. While it is difficult at best to overcome the inhuman, automobile dominant environment created outside most commercial strip stores, there are a couple things that can be done to soften the impact. One of these things is to introduce enhanced landscaping and pedestrian walkways into existing larger parking areas. Sizable shade trees, as opposed to smaller ornamentals, can provide beneficial shade over extensive asphalt areas and visually break up the expanse of paving in large parking lots. Pedestrian walkways located in parking area median dividers can get people out of the driving lanes and onto shaded walkways. Certainly many of the area’s suburban parking lots, designed for seven days of peak holiday season traffic, have ample room to incorporate these human-scaled features. Pedestrian-scaled streetlights along these same walkways can draw people to them, and provide for safety and security in the evening hours.

Notably, the town currently requires that existing, un-landscaped parking areas must be retrofitted with landscape improvements only when *significant specified changes* are proposed. These changes include a change in use according to the State Building Code, an addition of square footage to the building, or a change in use that requires additional parking. In other words, if one retail business moves out and another retail business moves in, that is not typically going to trigger requirements for parking lot improvements. Change in use from residential to commercial, on the other hand, will require that the owner meet current standards for parking lot landscaping.



Finally, it should be noted that the Town must walk a fine line between wanting to upgrade old unsightly parking lots and also wanting to encourage positive economic development and reuse of what might otherwise become a vacant building. The cost of adding landscape improvements to an exiting parking lot might be just the thing that causes a potential building tenant to look elsewhere.

Policy EC-2: The Town shall encourage the provision of convenience clusters for pedestrians, bicyclists and future transit services at strategic locations in existing commercial areas. Renovations to commercial areas should be pedestrian-scaled first, while also accommodating the automobile.

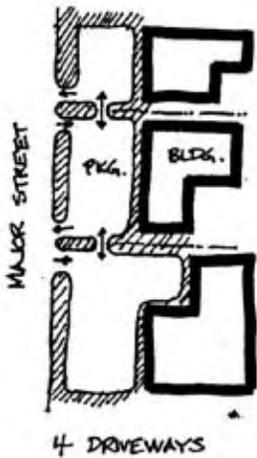
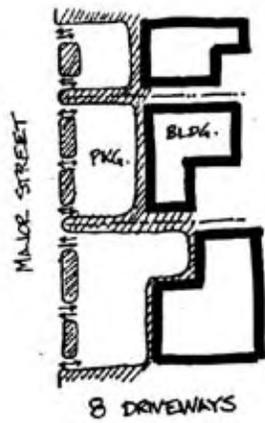
Currently, the exteriors of the town's large-scale commercial shopping areas are designed almost exclusively for the individual automobile. If these areas are to be accessible by people walking, biking or riding the bus or taxi, human-scaled mini environments must be created at strategic locations suitable for the non-motorist. These "convenience clusters" should be located at designated walking/biking entry points from adjacent neighborhoods. These same convenience clusters may also serve as transit stops in the future. Such convenience clusters should include, as appropriate, benches, trash receptacles, drinking fountains, shade trees, bike racks, information kiosks, and perhaps a small waiting shelter. The walls of the kiosk or waiting shelter may then be used to post community information, transit schedules, etc.

A good example of a *convenience cluster* is unfortunately hard to find in Wake Forest today. In the near future, however, new developments likely to include such pedestrian amenities will include the new town hall, the new Gateway Commons, and Phase 2 of Wake Forest Crossing.

Policy EC-3: The Town should encourage the consolidation of commercial driveways onto major streets and the connection of adjacent parking lots.

It should come as no surprise that a large number of randomly spaced driveways entering a major street have a direct negative impact on the ability of the street to move cross-town traffic. Each unpredictable turning movement (and there can be *hundreds, even thousands per business* during the course of the day) associated with an individual driveway slows traffic and creates the potential for a traffic accident.

One way to reduce this problem is to consolidate driveways as, for example, when three driveways can be reduced to two. This can be as simple as a single business replacing the existing apron of an extra driveway with a vertical curb. In other instances, it may call for two businesses coming together to share a common driveway along their property line. Such combinations can be especially helpful when they result in a more predictable, rhythmic spacing of roadway access points.



A second, equally important way to reduce turning movements onto major streets is to encourage adjoining businesses to connect their parking lots. This allows the motorist/shopper to visit more than one business on the same side of the street without turning back onto the highway for short distances. A good example of this in Wake Forest is along South Main Street near Capital Boulevard, where Advance Auto, American Pride and Mellow Mushroom have connected their parking lots.

Policy EC-4: The Town should encourage businesses to replace existing, non-conforming signage with more attractive, conforming signage. When buildings are renovated or replaced, franchise style buildings that serve as self-advertising billboards for the business within should be discontinued.

For years, the theory behind signage along major thoroughfares was to garner the attention of the fast moving motorist through bigger, brighter, taller, more animated signage. This attention-grabbing approach to commercial signage often resulted in some garish, visually offensive commercial strips. These strips also made many commercial strips look like every other commercial strip in the country. It has reached a point where motorists will drive out of their way to avoid the congestion and noxious appearance of such strips. Further, studies have shown that many people, when giving directions to out-of-town visitors, will route their friends on roads that avoid such ugly strips. They would rather not have their friends see such an unsightly part of their town.

In the case of Wake Forest, Capital Boulevard is most often identified as the road section that gives first time visitors to Wake Forest a misleading impression of what the town is all about.

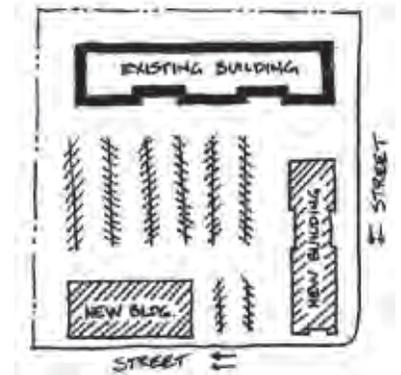
To sum up, excessive, attention-grabbing signage is neither necessary nor attractive. Eventually, the jumble of overdone signage overwhelms the motorist to the point that he or she simply tunes out the entire mess of color and hype. Residents at the town meetings for this plan stated their concerns about the sameness of franchise style and big box commercial strip development. While the Town has put in place many commendable new standards for less obtrusive signage (e.g. requirements for monument-style signage instead of pole mounted signage), the buildings themselves often become billboards for the type of business found within (i.e. Wal-Mart, K-Mart, Lowes, Home Depot, Office Depot, Office Max, Best Buy, Circuit City, McDonalds, Taco Bell, Jiffy Lube, etc.) Ongoing efforts of the Town to refine and implement better standards for signs and to discourage billboard-style, self advertising buildings, should therefore be continued,

with an eye toward phasing out much of the overdone commercial development found along the town's major streets.

Policy EC-5: New infill development across the front street face of existing, over-designed parking lots should be encouraged.

Observations of some of the town's largest commercial properties reveal that parking lots are at least half empty during all but the peak holiday shopping days (totaling about seven days, annually). This excess of asphalt is, more than anything else, a visual blight. It also adds to construction and maintenance costs, increases heat build up and storm water runoff, and reduces ground water recharge—all without adding anything to the character and quality of the town. This excess of parking affords an opportunity to place new commercial buildings along the street face of many commercial strips, thereby providing a sense of space to the street and visually containing off-street parking to the interior of the building cluster.

An example of this policy in Wake Forest can be found at the Shoppes at Caveness where several outparcels adjoining Capital Boulevard have been built upon by new businesses.



Policy EC-6: Town policies and ordinances shall continue to prohibit billboards within the planning jurisdiction of Wake Forest.

Previous Town Boards, drawing on the sentiment of the citizens of Wake Forest, have acted to ban billboards. In general, billboards have been deemed contrary to Wake Forest's small town character and efforts to emphasize historic preservation and quality of life issues. In fact, the historic quality of Wake Forest's downtown and surrounding historic core are widely thought to be one of the town's chief drawing cards for economic development. Billboards are inconsistent with that vision.

Policy NC-7: Bicycle and pedestrian access to existing commercial areas should be encouraged.

Despite past designs of commercial developments catering almost exclusively to the automobile, opportunity should be provided to the bicycling and walking public to gain access to the Town's existing commercial areas.

While the lack of a gridiron street network may limit the number of alternative access routes available to the pedestrian or bicyclist, there may

nonetheless be instances where a planned walkway or bikeway could satisfy a real need.

Regarding pedestrian access, access to a commercial shopping center may simply require the installation of a sidewalk in place of observed worn paths. In the case of bicycles, the Town's recently prepared Bicycle Plan takes major commercial centers into consideration when identifying recommended bike routes. And, as with any commercial area, bike racks should be placed in locations convenient to bicyclists.

Summary of Policies for Existing Commercial Areas

Policy EC-1: The Town should encourage appropriate landscaping and reconfiguration of large, existing unlandscaped parking areas. Landscaped pedestrian walkways from car to store or across a parking area should also be encouraged. Efforts to reduce excessive numbers of parking spaces should generally be supported.

Policy EC-2: The Town shall encourage the provision of convenience clusters for pedestrians, bicyclists and future transit services at strategic locations in existing commercial areas. Renovations to commercial areas should be pedestrian-scaled first, while also accommodating the automobile.

Policy EC-3: The Town should encourage the consolidation of commercial driveways onto major streets and the connection of adjacent parking lots.

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Policy EC-5: New infill development across the front street face of existing, over-designed parking lots should be encouraged.

Policy EC-6: Town policies and ordinances shall continue to prohibit billboards within the planning jurisdiction of Wake Forest.

Policy EC-7: Bicycle and pedestrian access to existing commercial areas should be encouraged.

FUTURE COMMERCIAL AREAS

Summary of Issues

New commercial uses, particularly those proposed for locations near a residential area, have traditionally been among the most controversial developments faced by community planners. Nothing new, this problem dates back to the days of rampant real estate speculation and commercial expansionism prevalent in America beginning in the early 1800s.

The main challenge in the decades ahead will center on two issues: 1) the need to rethink and redesign new commercial areas to be more compatible with nearby residential areas and 2) once that is done, to overcome the built-in objections of the public that *any* new commercial use, close at hand, is automatically an objectionable intrusion.

To solve the commercial encroachment question, it is necessary to think of new commercial uses in *two decidedly different categories*: (1) large scale commercial uses and, (2) smaller scale neighborhood businesses. The characteristics of each type of use, when properly designed and located, have profound impacts on the livability of the town and its inhabitants.

Policies for Large Scale, Commercial Areas

The Evolution of Large Scale Commercial Areas

Before World War II, larger commercial uses tended to aggregate in major urban centers, convenient to mass transit and to major concentrations of downtown workers. Thus, during much of the 20th century, residents of Wake Forest relied upon downtown Raleigh for their major shopping excursions. These downtown “department stores” were many stories in height due to the high price of real estate in the central business district.

With the widespread popularity of the automobile after World War II, and mass migrations of residents to the suburbs, larger commercial uses underwent a marked transformation in their location, function and appearance. Beginning in the 1960s, large-scale commercial uses first migrated to suburban strip shopping *centers*. These strip centers brought retail out to the burgeoning suburbs, where increasing numbers of residential “rooftops” guaranteed that customers would be close at hand. Stores were usually street facing, with a covered walkway offering protection from the elements when moving from store to store. Ample

parking was also provided within a direct line of sight to the shopper's retail destination.

During the 1970s, the advent of the enclosed suburban shopping mall allowed consumers to shop within the confines of a climate controlled, secure environment. Retail anchors, which were usually major department stores, continued their exodus from downtowns in favor of these new suburban locations.

During the 1980s and 1990s, "big box retailers" such as Wal-Mart and Home Depot replaced department stores as the new retail anchors in many new shopping centers. Customers moved out of doors once more as these "lowest price" retailers did away with the frills of the interior mall space to contain costs.

Finally, in the 2000s, big box retailers began appearing as stand alone "superstores" vacating their previous big boxes in favor of much bigger boxes. All through this period of retail movement and transition, consumer dependence on the automobile became ever more pronounced.

What will the large-scale commercial areas of the future be like? At least for the near future, it appears that the predominant influence of the automobile is not going to go away.¹ This means that large scale commercial uses, with their expansive parking areas and car-dependent customers are not going to be easily welcomed as next door neighbors to residential areas. For this reason, this plan recommends that large-scale commercial uses be accommodated in the urban fabric while working to lessen their negative impacts. The policies that follow deal with both the practical functioning of such uses as well as their aesthetic influence on the character of twenty-first century Wake Forest.

Policy LSC-1: Large-scale commercial developments should be encouraged, where appropriate, to contain a diverse mixture of retail, office, restaurant and service uses.

The separation of land and building uses into single purpose office parks, shopping centers, light industrial parks, etc. contributes to unnecessary automobile traffic between uses. This can be no more evident than during the typical lunch hour traffic rush when workers in isolated employment complexes must get into their cars to get to a restaurant or do mid-day shopping errands. Small assembly operations, offices, retail shops, personal services, restaurants, post offices, and other uses should therefore

¹ While internet sales are growing exponentially, it is assumed that there will always be a demand for on-site merchandising where the product can be seen first hand.

be encouraged to locate in mixed use developments whenever possible.

Policy LSC-2: Large-scale commercial uses are best located on the corners of neighborhood planning areas, that is, at the intersection of two or more major streets. Such large scale uses should be discouraged from “mid-block” locations where it is more difficult to distribute traffic flows.

So long as traffic circulation and access receive careful attention, large-scale commercial uses work best at the corners of neighborhood planning areas (i.e. where two or more major thoroughfares intersect). Large scale shopping centers, office complexes, manufacturing uses, hospitals and other large institutions are major traffic generators, usually drawing considerable amounts of cross-town traffic. By locating such uses at major intersections, motorists will find it more convenient to stay on major thoroughfares to get to these uses, rather than cutting through the narrower, pedestrian oriented neighborhood streets that this plan recommends.

Please note that not *every* corner of a neighborhood planning area need be taken up by large-scale commercial uses. Considerable relief can be gained by having some major intersections which are used for non-intensive development, including major parks, churches, residential development, etc.

Notably, the Town of Wake Forest has provisions in its development regulations concerning this very issue. According to the Town zoning ordinance, the location of new commercial developments is dependent in part on the number of major streets to which the property has access. Examples of this policy on the ground in Wake Forest include the Lowes Home Improvement site at the northeast corner of Capital Boulevard and the NC 98 Bypass, Heritage Square and Heritage Station Shopping Center at the intersection of Forestville Road and Heritage Lake Road, and the planned Gateway Commons commercial center at the southwest corner of the NC 98 Bypass and Wait Avenue/Jones Dairy Road.

Policy LSC-3: Planned mixed-use developments which allow for a compatible mixture of residential and non-residential uses with a pedestrian scale and design should be encouraged. Further, new businesses may be located adjoining (and therefore convenient to) an existing residential area, when such businesses can be shown to satisfy design considerations similar to a newly planned, pedestrian-scaled, mixed-use development.

Either America is a shopping center or the one shopping center in existence is moving around the country at the speed of light.

Russell Baker, 1985

The policies contained in this section deal primarily with the placement and design of large scale mixed use or commercial uses developed in tandem with nearby developing residential areas. In most cases, they should be planned in advance along with adjoining residential uses, rather than being “dropped into an area” after the area has already been substantially developed. In this way, appropriate consideration can be given to area-wide traffic patterns, transitional land uses, the need for landscaped buffers and other mitigating design features.

On occasion, however, there may be a situation where a new development may serve as an appropriate addition to a neighborhood planning area. In such cases, it will be incumbent upon the developer to demonstrate that (1) his proposal will provide a desirable service to the residents of the nearby neighborhood area(s) or (2) the design and scale of the proposed development will be compatible with the design and scale of the nearby neighborhood area(s). This last condition is the most difficult to achieve, given that “large scale commercial areas” are, by definition, not typically of a residential scale. (Also see Policy NEN-3 concerning the use of office and institutional development as a transitional land use between a major highway and residential areas and Policy LSC-4 below concerning the use of smaller scale buildings as a transitional use between large scale commercial and nearby residential areas.)



Policy LSC-4: In planning for a new large scale development, large-scale uses should be buffered from adjacent residential areas by smaller scale buildings or by buffer strips. Regardless of the type of buffer, such uses should be accessible from the neighborhood.

Large-scale commercial developments have traditionally been “cordoned off” from adjacent residential areas by use of a substantial fence, wall, and/or planted buffer strip. The purpose of this fence or strip is to effect a total separation of the large scale use from the adjacent residential area. The objective is to create a situation as if the commercial use were not there at all. As a result, people living within the adjoining neighborhood planning area must get into their cars and drive out onto the thoroughfare to reach a place of employment or shopping *which may be only a few hundred feet from their home.*

This plan recommends two ways to accommodate large-scale commercial and mixed use developments so that nearby residential areas are protected, while allowing potential workers and shoppers from these neighborhoods to walk, bike or drive to the major use:

First Method: Provide natural buffers, fences, and walls but penetrate them with pedestrian access ways.

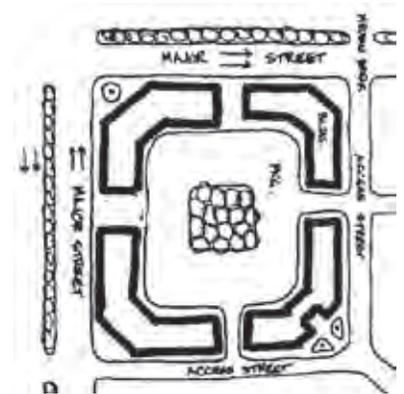
When plant material, fences or walls are created or preserved as buffer strips, they should include pedestrian and bicycle paths that penetrate the buffer from the adjacent residential area.

Second Method: Use small-scale buildings as a buffer.

Even better, a row of residentially scaled and designed commercial (office or retail) buildings may be positioned as a land use and building buffer between the large scale use and the residences to the interior of the neighborhood planning area. These buildings should be designed to blend easily with the scale and style of adjacent homes.

Policy LSC-5: Except for limited access highways, new commercial buildings should pull up to the street; parking should be placed to the rear or side of the structure.

As noted in the previous section, several of the town's major thoroughfares suffer from the sea of asphalt located to either side of the roadway. Parking lots dominate the street scene. As a result, commercial businesses either (1) employ large, colorful, pole-mounted signs as a substitute for the lack of business visibility at the street interface or (2) use the building itself as a massive billboard. By pulling commercial buildings up to the street, a sense of street enclosure is created and commercial signage can be incorporated into the design of the building itself. The ideal situation would be to arrange large-scale commercial buildings in a manner that would enclose an appropriately sized parking courtyard to the interior of an encircling building complex.



Policy LSC-6: When appropriate, the use of all around architecture should be required. That is, in some instances, it may be necessary to avoid designating a noticeable “service side” to a building, such as when a building abuts a residential or streetscape exposure, or other public space.

Commercial architects and developers have demonstrated an ability to create commercial buildings that are equally presentable on all sides (e.g. consider the modern day shopping mall located in the midst of parking on all sides). This *all around* architecture should be encouraged, especially where a large-scale commercial use abuts an adjacent residential area. By providing for all around architecture, the commercial use presents a more attractive appearance from all sides. It also affords the possibility that residents of adjacent areas will be able to approach the place of employment, shopping or service from the interior of the neighborhood planning area,

(traditionally the back side of buildings) thereby capturing more customers while reducing demand for parking.

Policy LSC-7: New large-scale commercial development should plan ahead for future public transit stops and convenience clusters. Such clusters should have pedestrian connections. Commercial areas should be pedestrian-scaled first, while also accommodating the automobile.

Planning ahead for future public transit stops (i.e. bus stops, taxi stands, etc.) should be an integral part of the design of large-scale commercial uses from the outset. Locations designated for future transit stops should be able to accommodate a bus shelter, shade trees, benches, drinking fountains, newspapers, etc. The nature and specific amenities associated with each convenience cluster should be commensurate with the nature and size of the commercial development being served. Further, such clusters should not be isolated from the development, but rather should have convenient pedestrian connections to the main activity areas of the development.

Likewise, commercial areas should have as their first priority a design that is compatible with pedestrian comfort and safety, and only secondarily designed to accommodate automobile access and parking.

Policy LSC-8: New large-scale commercial development should have limited driveway access to major thoroughfares and should connect all adjacent parking lots.

The problems created by numerous, randomly spaced driveways entering a major thoroughfare were previously described under the *Existing Commercial Areas* section of this plan. Certainly, the traffic circulation and street design of new major commercial developments should provide for a minimum of driveway cuts. In many situations, it may be necessary to give new commercial developments access only to intersecting streets or parallel service streets, from which access to the thoroughfare may then be gained. (See more on this in the *Major Streets* section).

In addition, adjacent developments should be required to connect their off-street parking lots so as to encourage movement between uses without entering the thoroughfare. These parking lot connections should be made a condition for both new construction and redevelopment.

Policy LSC-9: Auto dealerships, large equipment sales and other businesses primarily dependent upon expansive outdoor sales lots should be clustered together for both functional and economic reasons.

Expansive outdoor sales lots are necessary to the business of marketing new and used cars, as well as recreational vehicles, farm and construction equipment, boats, pre-fabricated storage buildings, manufactured homes, trailers and other large items. Because of the unique nature of these businesses, they function best when clustered together. In fact, in recent years some auto dealerships have been proactive in working with other dealerships to build *auto-malls*.

Unlike most other forms of commercial development, these large lot outdoor sales centers do not blend well into mixed use developments and are actually disruptive to achieving the objective of a fine-grained urban fabric. At the same time, these types of businesses benefit significantly from greater customer traffic when located near to each other.¹ In light of these factors, this plan recommends that consideration be given to adding a special district to the Town zoning ordinance for the explicit purpose of accommodating businesses dependent upon large outdoor sales lots.

Policy LSC-10: The abandonment of “big box” retail stores, for the purpose of relocating to another “bigger box” location in the community, shall be strongly discouraged unless plans are in place for the proper disposition and/or reuse of the original structure.

The term “big box” retailer has become a household term in the 21st century, with stores like Walmart, Target, Lowes Home Improvement, Home Depot, Sam’s Club and Costco among the most well-known in the Triangle area. As the predominance of these discount retailers has grown over the past decade or more, so too, has the size of these often cheaply built stores. New second generation “superstores” are generally replacing the first generation of big boxes. Unfortunately, when a first generation store is replaced, it is too often abandoned and left to sit empty, creating an eyesore and blight upon the area in which it is located. To compound problems, these retailers have been known to place restrictions on who may occupy the vacated building, so as to prevent competition. The Town of Wake Forest recognizes the negative impact of such corporate decisions and policies on the appearance, image, and economic health of affected parts of the community. This policy is intended to clearly articulate the

¹ In the retail world, this principal is known as *economies of agglomeration*, or the tendency of similar businesses to cluster together for mutually beneficial exposure to a larger customer base.

Town's opposition to big box abandonment and will not support such actions.

Summary of Policies for Future Large Scale Commercial Areas

Policy LSC-1: Large-scale commercial developments should be encouraged, where appropriate, to contain a diverse mixture of retail, office, restaurant and service uses.

Policy LSC-2: Large-scale commercial uses should be located on the corners of neighborhood planning areas, that is, at the intersection of two or more major streets.

Policy LSC-3: Planned mixed-use developments which allow for a compatible mixture of residential and non-residential uses with a pedestrian scale and design should be encouraged. Further, new businesses may be located adjoining (and therefore convenient to) an existing residential area, when such businesses can be shown to satisfy design considerations similar to a newly planned, pedestrian-scaled, mixed-use development.

Policy LSC-4: In planning for a new large scale development, large-scale uses should be buffered from adjacent residential areas by smaller scale buildings or by buffer strips. Regardless of the type of buffer, such uses should be accessible from the neighborhood.

Policy LSC-5: Except for limited access highways, new commercial buildings should pull up to the street; parking should be placed to the rear or side of the structure.

Policy LSC-6: When appropriate, the use of all around architecture should be required. That is, in some instances, it may be necessary to avoid designating a noticeable "service side" to a building, such as when a building abuts a residential or streetscape exposure, or other public space.

Policy LSC-7: New large-scale commercial development should plan ahead for future public transit stops and convenience clusters. Such clusters should have pedestrian connections. Commercial areas should be pedestrian-scaled first, while also accommodating the automobile.

Policy LSC-8: New large-scale commercial development should have limited driveway access to major thoroughfares and should connect all adjacent parking lots.

Policy LSC-9: Auto dealerships, large equipment sales and other businesses primarily dependent upon expansive outdoor sales lots should be clustered together for both functional and economic reasons.

Policy LSC-10: The abandonment of “big box” retail stores, for the purpose of relocating to another “bigger box” location in the community, shall be strongly discouraged unless plans are in place for the proper disposition and/or reuse of the original structure.

Policies for Future Small Scale, Neighborhood Businesses

Note: Small scale, neighborhood businesses, are distinguished from other types of commercial uses by their location, market area, and physical design. They are located away from the cross town motoring public, have a market area limited to no more than one square mile, and are designed at a residential scale and style of architecture. Unlike large scale, automobile-oriented commercial developments, neighborhood businesses require a compact, densely developed neighborhood to bring a large number of households within walking or biking distance of the business.

Policy SSB-1: Small scale, pedestrian-oriented shopping and work places should be encouraged in the design of new neighborhoods.

Future neighborhoods should provide the opportunity for at least some residents to work and/or conduct certain shopping errands within their neighborhood planning area. These residents should be able to walk or bike to their places of work. Similarly, small scale retail and service establishments should be carefully designed into the neighborhood planning area to allow some shopping trips to occur without getting out onto the major thoroughfare. Such service establishments should be housed in buildings that have a residential character and scale, and might include, for example, a neighborhood grocery store, walk up bank teller machine, automated post office, etc. While this will not reduce entirely the need for shopping and employment outside the neighborhood, it will nonetheless play a major role in reducing overall traffic on major collector streets.

Policy SSB-2: Neighborhood serving businesses should be located near the center of a neighborhood planning area rather than along a major thoroughfare.

It is important that neighborhood businesses not be convenient to the cross-town motoring public. Their location on the interior of the neighborhood planning area, accessible only by relatively narrow neighborhood

If the problem of urban transportation is ever to be solved, it will be on the basis of bringing a larger number of institutions and facilities within walking distance of the home.

Lewis Mumford, January, 1954

streets, and not on the way to anything else, will discourage their use by those who do not live within the neighborhood.

One important exception to this rule is when small scale mixed use businesses are employed as a buffer between a large scale, automobile-oriented development and nearby residences

Policy SSB-3: Neighborhood serving businesses should be designed at a residential scale and character.

The height, width, setback, building materials, roof pitch, etc. of neighborhood businesses should be consistent with the scale and character of the residential area they serve. The square footage of these structures should also be limited so as to further discourage high volume, out of neighborhood business. The building in which the business is housed should be viewed as an interesting architectural asset to the neighborhood, rather than the typical visual blight associated with, for example, a modern day “convenience” store.



Policy SSB-4: The location of neighborhood serving businesses should be coordinated with bikeways and, where appropriate, future transit stops.

Neighborhood businesses and small places of work should be located so as to reinforce and support the town’s bikeway system. Such businesses should also be accommodating to future transit stops. The sidewalk in front of a small-scale neighborhood store, for example, is a natural location for a bus stop. The bus rider can purchase a newspaper, a loaf of bread, a quart of milk, or whatever other incidental item they may need to pick up on their way home. Bicyclists may find such stores convenient places to stop for a cold drink or a snack. Further, by locating the transit stop close to small places of work, more people will be induced to ride the bus rather than drive their car.

Policy SSB-5: Neighborhood serving businesses shall employ on-street parking in coordination with a limited amount of off-street parking.

As noted previously, on-street parking can be highly effective in meeting the parking needs of small, pedestrian-oriented stores and businesses. By limiting the amount of off-street parking, the store or place of business is made less convenient to cross-town motorists, but no less accessible to the neighborhood resident on foot or bicycle. At the same time,

the neighborhood business will be more compatible with the residential character of the area. Implementation of this policy will require that the Town modify its off-street parking requirements to allow a reduction in the number of off-street parking spaces required for neighborhood serving businesses.



Policy SSB-6: Neighborhood serving businesses should be allowed to have only residential scale signage and lighting.

Identification signage for the place of business can be relatively small and unobtrusive, since the store will not be designed or marketed to grab the attention of the motoring public. Rather, the store's business will come from those who live within the neighborhood planning area and are already aware of its convenience. Likewise, exterior lighting need be no greater than the kind of security lighting a resident might install on the corners of a house.

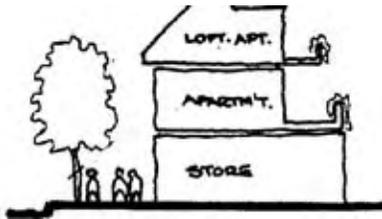
Policy SSB-7: Neighborhood serving businesses (e.g. a neighborhood general store) should be encouraged as an upfront, vertical infrastructure cost of new development.

This policy is directed at the private sector developer and homebuyer. This plan holds that a neighborhood general store that is within walking and biking distance is just as essential to a neighborhood as water and sewer lines, or other infrastructure and amenities. In our present day, developers and homeowners associations do not hesitate to underwrite the costs of pools, tennis courts, clubhouses, etc. as a necessary first cost of development. In the real estate development business, a clubhouse would be referred to as *vertical infrastructure* while a sewer line would be part of the development's *horizontal infrastructure*.

This same kind of thinking should apply to the first costs of building space for neighborhood services, if necessary. Under this arrangement, the homeowners association could then lease the structure out at a rent that the market and the economics of the store will bear. The neighborhood corner store manager would basically operate as a concessionaire, subject to the reasonable standards of the neighborhood association. In light of the rapidly expanding ranks of the senior citizen population, it is conceivable that one or more resident retirees would welcome the social and economic benefits of "running the neighborhood store".

But even in districts, suburbs, parishes, and wards it is desirable that there should be some centre. There should be some place where the minor buildings of the district may be grouped and where a definite central effect on a minor scale may be produced.

Sir Raymond Unwin, 1909



Policy SSB-8: Neighborhood serving businesses may be located near public amenities, when opportunity allows.

The small corner store and future transit stop is a logical location-mate for a public park, elementary school, community center, etc. By aggregating several diverse but small-scaled uses into a single location, a convenient service center and natural neighborhood focal point is created for neighborhood planning area residents. Experience has also shown that public parks that are under the casual observation of nearby business owners have fewer vandalism problems and incidents of juvenile mischief.

Policy SSB-9: Living quarters shall be encouraged over small retail shops and/or offices.

Another informal but effective way to exercise control over the use and activity of a neighborhood service business, is to provide for residential apartments in the floor(s) overhead. Such apartments provide for around-the-clock surveillance, and help assure that any neighborhood business is maintained at a level that is compatible with the neighborhood. Such apartments, convenient to a public park, neighborhood services, a transit stop, bikeway, and away from major thoroughfares may also present a highly desirable residence for someone who does not own (or chooses not to own) an automobile. Such units are also affordable, due in part, to the absence of land and infrastructure costs.

Summary of Policies for Future Small Scale, Neighborhood Businesses

Policy SSB-1: Small scale, pedestrian-oriented shopping and work places should be encouraged in the design of new neighborhoods.

Policy SSB-2: Neighborhood serving businesses should be located near the center of a neighborhood planning area rather than along a major thoroughfare.

Policy SSB-3: Neighborhood serving businesses should be designed at a residential scale and character.

Policy SSB-4: The location of neighborhood serving businesses should be coordinated with bikeways and, where appropriate, future transit stops.

Policy SSB-5: Neighborhood serving businesses shall employ on-street parking in coordination with a limited amount of off-street parking.

Policy SSB-6: Neighborhood serving businesses should be allowed to have only residential scale signage and lighting.

Policy SSB-7: Neighborhood serving businesses (e.g. a neighborhood general store) should be encouraged as an upfront, vertical infrastructure cost of new development.

Policy SSB-8: Neighborhood serving businesses may be located near public amenities, when opportunity allows.

Policy SSB-9: Living quarters shall be encouraged over small retail shops and/or offices.

Business and Industrial Areas

For the purpose of this plan, business and industrial areas are those that accommodate manufacturing, processing, assembly, storage and distribution operations. Collectively, these represent the basic industries of the town that bring new money into the community rather than simply recycling local paychecks.*¹ In the pages following, business and industrial areas are addressed for three eras of development:

First Generation Business and Industrial Areas are typically manufacturing operations established before World War II, on smaller, in-town sites— usually rail oriented rather than truck oriented.

Second Generation Business and Industrial Areas are typically manufacturing operations established after World War II, on larger, suburban sites and largely dependent upon truck transportation for distribution of goods.

Third Generation Business and Industrial Areas For Wake Forest, these are typically “light” industrial operations established during the past 30 years, often within business and industrial parks. They are usually not rail-oriented.

We must challenge the whole theory of [separation of land uses] upon which so many American communities, not least those that call themselves ‘progressive,’ have been zoned: zoned so that one-family houses and apartment houses, or row houses and free-standing houses, cannot be built side by side; zoned so strictly for residence that in many suburban communities one cannot buy a loaf of bread or a tin of tobacco without going a mile or two by car or bus to the shops. The pernicious effect of this kind of zoning was first adequately characterized by the American Institute of Architects as far back as 1924, and time has abundantly proved all its contentions.

Lewis Mumford, May 1956

¹ While some retail establishments can also bring new money into the community from surrounding areas, retail sales are usually a mix of local and non-local dollars. Such businesses are addressed under the Commercial Development Policy Section of this plan.

First Generation Business and Industrial Areas

Summary of Issues

Compared to many small towns in North Carolina, Wake Forest was never primarily a manufacturing center. From its early foundations as a place for education, industrial development was largely a sidebar in the development of the town. Even so, among the older industrial enterprises in Wake Forest, the Glen Royall Cotton Mill holds a notable place in the history of the community. W.C. Powell, R.E. Royall and T.E. Holding established the mill in 1900 to produce muslin sheeting. The mill buildings and adjoining workers' housing brought about significant change to the area of town a few blocks north of Wake Forest College. Glen Royall Mill is a classic example of an early twentieth century, textile-related manufacturing operation.

Glen Royall Cotton Mill had many characteristics common to industrial properties of the time. The Mill made good use of the rail line, which ran along the east side of the property. The mill buildings were predominantly of masonry (brick) construction, two or more stories in height, with relatively low interior ceilings. Two or more story buildings could be constructed on less land, so industrial parcels like the Cotton Mill tended to be smaller, compared to post war industrial properties. Multiple story structures also allowed a greater proportion of the total square footage in buildings to huddle relatively close to the rail connection. Low ceilings allowed for economical construction, while still permitting labor-intensive operations to be carried on efficiently.

As most workers walked to the mill, these old industrial enterprises, including Glen Royall, had little or no need to accommodate horses or carriages. Often these early mills had residential areas immediately adjoining the manufacturing site, built by the owners of the mill to ensure a reliable, essentially captive workforce close at hand. Hence, the "mill village" became a standard development form in or near many small towns during the early 20th-century, including Wake Forest.

In addition, old industrial facilities like Glen Royall Mill were not set apart from other urban activities like more modern day plants. They often were built with other commercial and community services nearby. It was not unusual to find a general store, barbershop, post office, and other services located either within the mill village or in a small commercial area nearby. Generally speaking, industrial development of the late 19th and early 20th-century was not relegated to distant tracts of land in remote locations, but was very much a part of the community.

Significantly, the same characteristics of these old industrial plants that made them so well suited to the railroad era, rendered them functionally obsolete by the start of the second half of the Twentieth Century. Two story structures were not compatible with the single level assembly line operations associated with post-war industry. Low ceilings were unable to accommodate large pieces of equipment and overhead conveyor lines. In-town locations on small sites made parking for the new, automobile-oriented labor force in short supply or lacking altogether. Such locations were also less convenient for truck access, the transportation mode of choice for most modern industries. In fact, their in-town locations brought unwanted truck traffic into nearby residential areas. These old industrial buildings were also hampered by the presence of asbestos and by difficulties in meeting modern fire and other safety codes. As a result, such older industrial buildings were unable to function for their intended purpose; many were abandoned during the 1950s and 60s, left to sit as silent reminders of a by-gone era.

Fortunately for the Town of Wake Forest, Glen Royall Mill and the Mill Village homes nearby are not among the many old industrial properties around the state that were abandoned and left to ruin. To the contrary, the mill building and commissary at Glen Royall Mill have been successfully converted to affordable one, two and three bedroom apartments with open floor plans and large windows. Likewise, many original mill village homes have been preserved, offering relatively affordable housing near the heart of historic Wake Forest. The policies that follow seek to encourage similar success stories for other old commercial and non-residential buildings in the town.

Policies for First Generation Business and Industrial Areas

Policy FGI-1: The Town of Wake Forest should be an active participant, facilitator and partner in the ADAPTIVE REUSE AND CONVERSION of former production, warehousing and manufacturing buildings into uses compatible with their design and location.

In the case of adaptive reuse, some multi-story, masonry structures like those at Glen Royall lend themselves to residential uses such as loft apartments. Others may be better located and suited for office or institutional uses, while still others may be adaptable for retail use. Some may best work as a mixture of uses, bringing retail, office and residential uses together in

a single location. Hence, the Cotton Company in downtown Wake Forest stands as another good example of the successful adaptive reuse of a former non-retail building.

Policy FGI-2: If the DEMOLITION OF AN OLD INDUSTRIAL BUILDING or complex becomes necessary, any new structure(s) and site redevelopment should be compatible with the neighborhood context; such redevelopment should serve to improve the quality, character and livability of the surrounding area.

In some instances, adaptive reuse of an existing, old industrial building may not be feasible. Such buildings may be severely handicapped by asbestos, fire code issues, unworkable structural designs, flimsy construction, or other factors. In other instances, an old industrial building may have no redeeming architectural or historic value and may, in fact, be an eyesore in the community.

When there is no alternative other than demolition, it is important that any new structure(s) be compatible with the neighborhood context within which the redevelopment occurs. Often, an old industrial building may be located in the midst of a larger, non-industrial area. The surrounding larger “neighborhood” may include small businesses and existing residences. Such redevelopment offers a once in a lifetime opportunity to make a profound improvement in the character and quality of the neighborhood. It is important that such opportunities not be squandered. Such redevelopment should therefore respect the character of the surrounding area, including street layout, pedestrian movement, building scale, building setbacks relative to the street, placement of parking, landscaping, lighting and other design elements.

In addition, it is important to note that compatibility with the neighborhood context does not necessarily mean the construction of new buildings of a scale and design just like the old ones. The old buildings, in fact, may have been out of scale, poorly placed, brightly lit, etc. in a manner that did not contribute to the quality and livability of the surrounding neighborhood. Rather, the focus should be on new buildings and site development that *improve* the quality, character and livability of the neighborhood, within appropriate context.

Second Generation Business and Industrial Areas

Summary of Issues

As noted above, the changed character of post-World War II industrial operations favored larger suburban or rural land tracts over in-town sites. To take advantage of linear assembly line operations and modern methods of handling materials, manufacturers and distributors required expansive, single story plants rather than the traditional multi-story mills of the late 19th and early 20th century. The need for more land area, as well as the need to mitigate and buffer certain undesirable “externalities” associated with such large operations, provided the push for new industries to seek more isolated locations away from the urban core.

One mid-twentieth century study, which documented the movement of new manufacturing plants away from old town locations, showed that the proportion of plants served by railroad sidings fell from 63 percent for sites acquired before 1920 to 40 percent for sites acquired between 1946 and 1956.¹ The same study found that plants built outside the old, originally rail oriented central parts of an urban area occupied an average of 1,040 square feet of land per worker before 1922. Plants built after 1945 took up an average of 4,550 square feet per worker, or over four times as much space.

Issues regarding Wake Forest’s *Second Generation Business and Industrial Areas* tend to focus primarily on potential environmental concerns and the continued economic viability of these sizeable buildings and sites.

Policies for Second Generation Business and Industrial Areas

Policy SGI-1: The Town of Wake Forest should encourage and support the REHABILITATION, IMPROVEMENT, AND RE-OCCUPANCY OF VIABLE BUSINESS AND INDUSTRIAL PROPERTIES that have become vacant. Re-occupancy may be by another suitable industrial operation or by adaptively reusing the site or structure for non-industrial purposes.

Certainly, an important priority of the Town is to keep second generation industrial properties viable employers and contributors to the economy

¹ Edgar M. Hoover and Raymond Vernon, *Anatomy of a Metropolis*, 1959.

and tax base of Wake Forest. A good example of a second generation industrial/distribution center model is the old Burlington Industrial Plant. Now renamed the Riverplace Commerce Center, this facility continues to house light industrial and distribution type uses, though at a lesser intensity than in its heyday as a single purpose manufacturing facility. Located on the west side of Capital Boulevard just north of the Neuse River, trucks leaving the site have easy access to US 1, and from there to the balance of the state highway system. While there is a rail spur serving the site, the new uses in the building appear to rely exclusively on truck transportation.

Another second generation manufacturing facility that has taken on a markedly different purpose is the former Athey Products Corporation, which made motorized street sweepers at its plant on the east side of South Main Street between Capcom Avenue and Rogers Road. Now renamed The Factory, this huge building houses a multi-purpose complex including entertainment, recreation, dining and retail shops in the former manufacturing facility. It is one of the better examples in the Triangle area of the creative adaptive reuse of a previous manufacturing site for an entirely different purpose. In the case of The Factory, the conversion of the former manufacturing facility to a retail and entertainment complex is, conveniently, a more appropriate use for this location.

Policy SGI-2: The Town of Wake Forest acknowledges and supports the work of state and federal agencies, as well as its own town building inspectors, concerning the enforcement of ENVIRONMENTAL REGULATIONS AND BUILDING STANDARDS, particularly concerning the redevelopment or adaptive reuse of manufacturing sites and buildings.

There have been few land use compatibility problems associated with second generation manufacturing facilities in Wake Forest, largely due to their isolated and well-buffered locations. Elsewhere, however, there have been instances where environmental concerns have been of concern. This is often because these operations came into being before the environmental standards of the 1970s were put into effect. Specifically, there have been issues concerning the manner in which waste materials were handled and disposed of prior to the National Environmental Policy Act of 1969, the Clean Air Act of 1970, and the Clean Water Act of 1972. Redevelopment of these industrial sites for uses other than manufacturing operations can entail the removal of contaminants on the property or in the soil. These concerns often do not arise until permits are sought to renovate and reuse these older facilities. This policy seeks to acknowledge the potential for such concerns and the appropriate means to deal with them, should they arise. The appropriate

reuse and rehabilitation of these second generation facilities are the focus the policies which follow.

Third Generation Business and Industrial Areas

Summary of Issues

More recent additions to Wake Forest's manufacturing and distribution base have focused on just a few industrially zoned properties. The South Forest Business Park, for example, is located in the southern part of town off Burlington Mills Road east of Capital Boulevard. The property is designed primarily for business and light industry on small to medium acreage lots. While a rail line runs along the western edge of the property, no industries in the business park rail appear to make use of it.

Heritage Business Park is another business and light industrial property providing development sites for small to medium sized operations. This business park is located on a wedge of land between Rogers Road and Forestville Road, about one mile south of the new 98 Bypass. While the rail line forms the western border of the property, there is no apparent rail access to businesses in the park.

In recent years, Wake Forest has seen few new industrial opportunity sites created within its borders; most new industrial type businesses have gone into existing business parks. While there are still some land tracts within the corporate limits that could be candidates for appropriate light industrial development, competition from the commercial, office, and residential development sectors has driven up the cost of most land in the town to levels that are generally not attractive for the acreage requirements of industry. An industrial development requiring substantial land area would be more likely to seek a location in more rural areas to the north and east outside the town of Wake Forest.

Even so, there are still locations available in Wake Forest within existing industrially zoned properties for new business and industrial uses. The balance of this policy section focuses primarily on those types of industries that can fit comfortably within the existing urban fabric of the town.



Policies for Third Generation Business and Industrial Areas

Policy TGI-1: The Town should periodically examine its zoning ordinance and other development regulations as to the appropriate STANDARDS AND LOCATIONS FOR MANUFACTURING, WAREHOUSE AND DISTRIBUTION opportunities within the Town’s planning jurisdiction.

An examination of Wake Forest’s official zoning map reveals a very limited amount of industrially zoned land for a town of its size. Most of the industrially zoned tracts in the town have already been developed for industrial use, in part or in whole. A couple tracts (i.e. The Factory and the Wake Pointe Shopping Center) are zoned for industry, but are, in fact used for non-industrial commercial enterprises.

It is therefore important that the Town periodically examine its industrially zoned land, as well as the text of its zoning ordinance, to keep the current I-1 district up to date and to explore appropriate opportunities for its application in Wake Forest.

Policy TGI-2: The Town of Wake Forest should employ INDUSTRIAL DEVELOPMENT PERFORMANCE STANDARDS to promote the establishment or expansion of industries that are compatible with the public health, safety, and welfare of area residents, and that are supportive of the long term economic prosperity and environmental quality of the community.

Wake Forest’s zoning ordinance includes little specific language concerning the nature of industrial uses desired within the Town’s only industrial zoning district, the I-1 District. The district language includes the following general statement:

“The I-Industrial District is established as a district in which the principle use of the land is for industry and those uses which can be operated in a relatively clean and quiet manner and which are conducive to industrial development while not being a nuisance to adjacent residential or commercial district.”

The text of the district also has a list of Prohibited Uses which includes the following catch-all description of a prohibited use:

“Any use or trade which, though properly and safely operated with ordinary care, according to good and reasonable practice, causes noxious or offensive odors, gas, fumes, smoke, dust or vibration of noise which substantially interferes with other uses of property permitted in the district.”

Objectively, the wording of these two provisions is subject to considerable variation in interpretation. Ideally, for the ordinance to be most effective, the meaning of these various environmental impacts should be accurately defined according to *measurable, quantitative thresholds*. In zoning ordinances, such thresholds are most often referred to as *performance standards*. Examples of *performance standards* include numerical estimates of the following factors relative to industrial operations:

- air pollutant emissions released
- off-site lighting produced
- noise levels produced at the property line
- odor produced
- truck traffic generated
- water pollutant levels in effluents released

In addition, the Town may want to establish acceptable thresholds for other types of impacts. These *quantitative* thresholds are also useful as recruitment criterion for economic development in bringing in or facilitating the expansion of business and industry. The criteria might include such factors as:

- water consumed per job or tax base unit
- number of jobs generated relative to environmental impacts
- energy consumed per job or tax base unit
- volume of solid waste produced per job or tax base unit
- land area consumed per job or tax base unit
- wage rates/total payroll generated relative to environmental impacts

Lastly, there may be some *qualitative* measures which would help the Town decide upon the compatibility of a new industry with the general health safety and welfare of the public:

- pollution control systems/assurances of environmental protection
- previous track record of the industry as a whole
- the general nature and risk involved with the particular hazardous or toxic substances used in manufacturing process

Note that the evaluation of these factors is not as simple as punching numbers into a computer and “out pops the answer”. It will still be necessary for

Town officials to employ measured judgment in weighing the various factors before reaching a conclusion. Nonetheless, such factors can be useful in achieving greater predictability and consistency in making decisions.

Policy TGI-3: Newly developed industrial sites adjoining residentially zoned or developed areas should provide and maintain for adequate SCREENING AND BUFFERING between the uses. New residential development moving into an area adjoining industrially zoned or developed areas should have the burden of providing for its own screening and buffering.

Landscape plantings or retained natural growth are oftentimes employed to reduce or “buffer” incompatible, adjoining land uses. For so-called “light” industries, such buffering may involve a simple hedgerow or other planted landscape screen with minimal spatial separation between the adjoining uses. For “heavy” industries, the buffer between adjoining incompatible uses may involve the retention or establishment of sizable trees and dense undergrowth, as well as a substantial buffer width, perhaps involving considerable acreage to increase the distance between the uses. As Wake Forest would appear to not favor any form of “heavy” industry within the town limits, the requirement for a substantial buffer may never come into play.

Impacts from light industrial development may be largely visual, such as



homes looking out upon large manufacturing buildings, rather than from odor, noise or bright lights. Visual impacts can be mitigated to a large extent by the introduction of landscaped screening and buffers between the industry and nearby residences.

Policy TGI-3 calls upon newly developed industrial sites to shoulder responsibility for installing and properly maintaining landscaped screens and buffers between their operations and adjoining residential properties. The objective should be to establish a landscaped buffer of sufficient height and density to largely or wholly screen an unattractive industrial operation from view. When building height and proximity preclude complete screening, the buffering should do the best job practicable to achieve maximum screening benefit. Also, when such buffers incorporate a fence or wall, the fence or wall should be set back from the property line so as to allow room for plantings to occur on the side of the fence facing the residential property.

Ideally, new residential developments should keep their distance from existing industrially zoned property, and vice versa, thereby minimizing potential land use conflicts. However, as Wake Forest's urban area moves farther into the countryside and developable land becomes more scarce, there may come a time when new residential development moves into sites adjoining existing industrial areas. Policy TGI-3 recognizes that when new residential development is proposed for property adjoining an existing industrial operation, the industry should not be required to provide for a landscaped buffer. Rather, the developer of the residential property should allow for enough buffer area between the neighborhood and the industry to fully screen the industry. Most often, this screening will occur in the form of wooded areas *owned by the developer* to be left uncleared. In other situations, it may require the installation of a screening fence, landscape berms and additional planted materials.

Policy TGI-4: Industrial and warehouse SITES LOCATED WITHIN VIEW OF A PUBLIC RIGHT OF WAY OR NEARBY PROPERTY in Wake Forest should provide for landscaping that enhances the property and is consistent with a quality image, thereby further improving opportunities for quality economic development in the community. This policy includes SELF-STORAGE WAREHOUSING sites.

Development policies concerning the enhancement of the town's principal streets are most often directed at commercial developments such as strip malls, chain stores, fast food franchises, and automobile service stations. The appearance of industrial properties and warehouse sites are less frequently addressed. Yet even a modest manufacturing or warehousing operation can involve a significant amount of road frontage and exposure. Visual impacts of such industrial properties may include chain link/barbed wire security fencing, expansive paved surfaces, outdoor storage

of materials and equipment, loading docks, refuse disposal areas, and so forth.

This policy therefore requires industries and warehousing within view of public rights of way to provide for adequate attractive landscaping, buffering and/or screening compatible with beautification efforts of other development forms. At the same time, the policy recognizes that there may be some industrial and warehousing operations that are located “off the beaten path”, largely out of sight, perhaps in the midst of an industrial district. In these situations, landscaping and visual buffering may not be necessary, or may require a much lower level of enhancement.

Finally, some observers have noted that Wake Forest seems to have more than its share of self-storage warehouse facilities. Whether or not this is true, there is legitimate concern that these facilities should be held to similar appearance standards as other developments facing the public right of way.

Summary of Policies for Business and Industrial Areas

FIRST GENERATION

Policy FGI-1: The Town of Wake Forest should be an active participant, facilitator and partner in the ADAPTIVE REUSE AND CONVERSION of former production, warehousing and manufacturing buildings into uses compatible with their design and location.

Policy FGI-2: If the DEMOLITION OF AN OLD INDUSTRIAL BUILDING or complex becomes necessary, any new structure(s) and site redevelopment should be compatible with the neighborhood context; such redevelopment should serve to improve the quality, character and livability of the surrounding area.

SECOND GENERATION

Policy SGI-1: The Town of Wake Forest should encourage and support the REHABILITATION, IMPROVEMENT, AND RE-OCCUPANCY OF VIABLE BUSINESS AND INDUSTRIAL PROPERTIES that have become vacant. Re-occupancy may be by another suitable industrial operation or by adaptively reusing the site or structure for non-industrial purposes.

Policy SGI-2: The Town of Wake Forest acknowledges and supports the work of state and federal agencies, as well as its own town building inspectors, concerning the enforcement of ENVIRONMENTAL REGULATIONS AND BUILDING STANDARDS, particularly concerning the redevelopment or adaptive reuse of manufacturing sites and buildings.

THIRD GENERATION

Policy TGI-1: The Town should periodically examine its zoning ordinance and other development regulations as to the appropriate **STANDARDS AND LOCATIONS FOR MANUFACTURING, WAREHOUSE AND DISTRIBUTION** opportunities within the Town's planning jurisdiction.

Policy TGI-2: The Town of Wake Forest should employ **INDUSTRIAL DEVELOPMENT PERFORMANCE STANDARDS** to promote the establishment or expansion of industries that are compatible with the public health, safety, and welfare of area residents, and that are supportive of the long term economic prosperity and environmental quality of the community.

Policy TGI-3: Newly developed industrial sites adjoining residentially zoned or developed areas should provide and maintain for adequate **SCREENING AND BUFFERING** between the uses. New residential development moving into an area adjoining industrially zoned or developed areas should have the burden of providing for its own screening and buffering.

Policy TGI-4: Industrial and warehouse **SITES LOCATED WITHIN VIEW OF A PUBLIC RIGHT OF WAY OR NEARBY PROPERTY** in Wake Forest should provide for landscaping that enhances the property and is consistent with a quality image, thereby further improving opportunities for quality economic development in the community. This policy includes **SELF-STORAGE WAREHOUSING** sites.

Downtown Wake Forest

Downtown Wake Forest is the social and cultural heart of the community. It is also the area of town that visitors to the community are most apt to remember and associate with Wake Forest. Citizen input received at the first town meeting for the Community Plan identified a vibrant, revitalized downtown as the single most important element of a desired future for Wake Forest.

Even so, the continued vitality of the downtown has not been without its challenges over the years. During the seventies and early eighties, the downtown area experienced the departure of many of its long-standing office and retail establishments. Over the years, it has seen businesses come and go, succeed and fail. Yet, through it all, downtown Wake Forest has demonstrated a sustained economic resiliency.



Background on Downtown Revitalization Efforts

The website for the Wake Forest Downtown Revitalization Corporation (DRC) provides an excellent summary of efforts of the past 25 years to improve upon this vital core of the community:

“The Wake Forest Downtown Revitalization Corporation (DRC) was formed in 1984 by a group of citizens concerned by the increasing vacancies in downtown. The founders realized that Wake Forest could not retain its individuality without a solid and vibrant “heart”. Today, with the support of the Town of Wake Forest, a dedicated group of volunteers is continuing their work. Even though downtown Wake Forest is home to many unique, independent businesses, we must remain active and vigilant to face the challenges of today’s business world. In 2003, the Town of Wake Forest began donating funds for a professional downtown manager which enabled us to enlarge the scope of our operations. We are optimistic about the future of downtown Wake Forest and hope you will be a part of our accomplishments. Come see what downtown Wake Forest has to offer. Stroll, shop, eat and enjoy.



DRC Mission: The DRC website also presents the mission of the DRC.

In an ongoing effort to foster the health and vitality of Downtown Wake Forest, the Downtown Revitalization Corporation shall:

- *Direct focused growth and development by aiding in the implementation of the Renaissance Plan and by recruiting suitable business and residential projects to Downtown Wake Forest.*
- *Develop and promote downtown events and functions that grow the visibility of Downtown Wake Forest through increased arts and entertainment opportunities.*
- *Partner with government and local organizations on issues impacting the Downtown Wake Forest area.*
- *Identify and provide assistance to Downtown Wake Forest stakeholders.*
- *Maintain and expand a consistent and aesthetically appropriate image for the Downtown Wake Forest area.*

Compared to other cities of its size in North Carolina, Wake Forest has a lengthy history of active involvement in downtown revitalization. The following chronology summarizes some of the more significant events concerning downtown revitalization in Wake Forest:

1979: Wake Forest established a **Historic District Commission** (HDC), Historic Properties Commission (HPC) and adopted a locally designated historic district ordinance—one of the first communities in the state to do so.

1984: The Wake Forest **Downtown Revitalization Corporation** (DRC) emerged from an advisory group appointed to look into strategies for downtown improvement.

Late 1980s: Three tools for leveraging private sector investment in the downtown were put in place by the Town and the DRC: (1) a Facade Improvement Incentive Grant Program (2) a Rental Subsidy Program for Businesses and (3) a Low Interest Rate Buy Down Program.

1986: First *Wake Forest Downtown Revitalization Plan* was adopted. Also that year, an AIA Urban Design Assistance Team conducted a benchmark visioning meeting for the downtown.

1987: The old fire station of White Street was renovated and occupied by the **Wake Forest Chamber of Commerce**, acknowledging the importance of the downtown to the future growth of the town.

1988: The downtown area **municipal service district** was established, providing a mechanism for generating revenues for downtown area improvements, including especially parking. The municipal service district was expanded in 2007 to encompass the study area for the Renaissance Plan of 2003, less certain residential areas.

1990s: While other small towns were struggling to capture new investment in their downtowns, Wake Forest saw **many buildings renovated or constructed**. These included the Cotton Company, the Warren, Perry and Anthony Building, the Matt Hale Building, LaForesta Italian Restaurant, and the offices of *The Wake Weekly*, among others.

1996: The institutional structure for historic preservation in Wake Forest was updated to be consistent with new state enabling legislation. The newly formulated **Historic Preservation Commission** assumed the responsibilities for the two previous separate boards—the HDC and HPC.

2002: The Downtown Wake Forest Historic District was added to the **National Register District**.

2003: The *Renaissance Plan for the Heart of Wake Forest* was completed, identifying a host of public and private sector strategies and opportunities for improving downtown Wake Forest.



2005: The *Urban Code Handbook* was adopted, setting forth design standards to help implement the Renaissance Plan.

2006: Wake Forest was accepted into the **North Carolina Main Street Program**. This program, conducted under the auspices of the National Trust for Historic Preservation, is designed to help equip small cities for the on-going task of preservation, redevelopment and revitalization of their downtowns.

2007: **CVS Pharmacy**, at the corner of South White Street and East Elm Avenue, opens as the first new significant private sector building investment since the adoption of the Renaissance Plan.

Currently, the Town and the DRC are working closely with the North Carolina Department of Transportation on a town-wide **wayfinding project** that focuses on helping visitors find downtown Wake Forest. Signs to help direct travelers to the downtown will be placed on Capital Boulevard and other gateway locations entering the town, and once they arrive downtown, other signs will identify such things as parking lots and other significant attractions.

Policies for Downtown Wake Forest

Policy D-1: The Town should encourage a COMPATIBLE, DIVERSE MIXTURE of retail, office, institutional, residential, dining, services, entertainment, and public open space in the downtown area.

Wake Forest's downtown derives much of its economic energy from the diversity of uses found in the area. This interdependent mix of businesses and activities has survived and supported itself with amazing durability decade after decade. Downtown activities include retail sales, services, dining, entertainment, residential, government, religious, education, finance, recreation, and public open spaces.

It is important for the economic health of the area that the downtown is not given over to one use more than another. For example, if the downtown were to become too heavily dominated by offices, nightlife and natural pedestrian security of the area would diminish. Similarly, without the restaurants in the downtown area, downtown office workers would suffer the same plight as their suburban counterparts, joining the noontime rush-hour traffic in search of a restaurant. The downtown is also a logical area for residential development, within walking distance of a variety of services.

Policy D-2: While encouraging a diversity of uses and activities in the downtown area, the Town recognizes the advantages of CLUSTERING SIMILAR ACTIVITIES and development forms in appropriate parts of the downtown.

The generally acknowledged benchmark Renaissance Plan (2003) includes as one of its central themes the desirability of clustering similar activities and development forms together so as to create added interest and critical mass for certain activities. Specifically, the Renaissance Plan identifies three distinct areas for coordinated development.

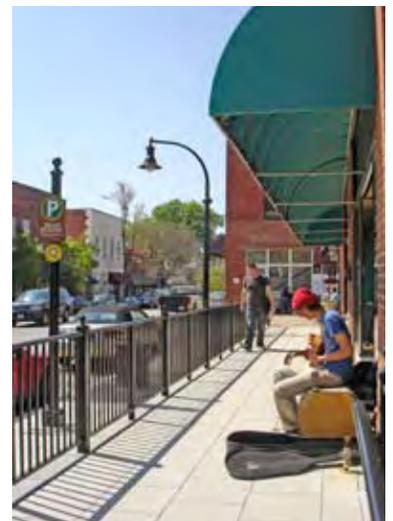
The Arts and Entertainment District—includes a clustering of retailers, restaurants, and artists along South White Street, East Jones Avenue, East Owen Avenue, and South Brooks Street between Roosevelt Avenue and Elm Avenue. This is the historic commercial core of Wake Forest. This clustering will increase the retail strength of each individual business by making it easier for customers to visit more than one retail establishment at a time.

The Town Center South District—incorporates an area of about 20 acres between Elm Avenue and East Holding Avenue that is envisioned as becoming a significant mixed-use development and important central location in the heart of Wake Forest.

The Campus District—an area generally south of East Holding Avenue and north of the 98 Bypass bounded by South Franklin Street to the east and the railroad to the west. This area already has the character of an institutional campus, by virtue of the new Post Office, the Wake Forest Branch Library, the Senior Center, Wake County Northern Regional Center, and the Franklin Academy Charter School.

Policy D-3: PEDESTRIAN ORIENTED STREETScape IMPROVEMENTS including, but not limited to, wider sidewalks, street trees, decorative street lights, street furniture, and landscaping should be continually expanded consistent with the historic, pedestrian character of the downtown and to stimulate continued economic development.

Over the past two decades, the Town of Wake Forest has been active in making streetscape improvements to enhance the appearance and livability of downtown Wake Forest. These improvements have included the relocation of overhead power lines and the installation of new crosswalks, street trees, streetlights, benches, trash receptacles, etc.



Recently, the Town began to install sidewalks and other street improvements along Franklin Street. Two roundabouts are also planned at the intersection of Franklin and Elm and Franklin and Holding. Upon completion of these features, Franklin Street is to become a new, preferred entryway corridor into the downtown.

In addition to Franklin Street, new streetscape improvements are also planned for South White Street, to be completed under a cooperative arrangement of the Town, the DRC and the North Carolina Department of Transportation. Improvements will include new, wider and handicapped accessible sidewalks, parking improvements, new street trees, new streetlights, landscaping and street furniture. Construction is expected to start this year (2008).

The installation of streetscape improvements along Franklin and South White Streets promises to enhance the appearance and function of the downtown significantly. The downtown will soon be a showcase not only during special events or when the trees are decorated during the holiday season, but year-round, as downtown workers and visitors enjoy the pedestrian-friendly environment of the area. These pedestrian oriented improvements should be continued along other streets in the downtown as budgets allow.

Policy D-4: New and expanding businesses requiring OFFICE SPACE should be directed first to compatible buildings and sites in or near the downtown area.

The Town of Wake Forest has a long standing commitment to the economic health and success of its downtown area. Two sister organizations that receive funding support from the Town include the Downtown Revitalization Corporation and the Wake Forest Chamber of Commerce. Together, these three entities should continue to work cooperatively to direct new businesses requiring office space first to the downtown, and secondarily to other non downtown area locations. Office uses are important to maintaining a diversified economic mix in the downtown area; office workers create much needed demand for products, services and dining establishments. If the Town, the DRC and the Chamber did not share an on-going commitment to placing offices downtown, it could be all too easy to simply direct new office prospects to “greenfield” sites (raw land, never previously developed) in a suburban location. Implementation of this policy will require maintaining an inventory and actively marketing available space in the downtown for office use.

Policy D-5: OFFICES and ASSEMBLY TYPE USES WITHIN THE HISTORIC COMMERCIAL CORE of the downtown should be located on upper floors, reserving ground floor space for retail uses.

While offices and office workers bring the promise of desirable retail customers to downtown area merchants, it is important that office space not take up valuable retail space on the first floor within the historic commercial core of the downtown. For retail uses to survive, there must be consistent retail exposure at the sidewalk level throughout the central commercial district. Similarly, assembly type uses, such as churches and civic clubs, should not occupy critical ground floor retail space. Such non-retail uses create a “dead space” along that portion of the block that they front upon. They also bring few customers to the commercial core due to their customary evening and Sunday meeting times. Office and assembly type uses should therefore be directed to second floor locations.

Policy D-6: The Town shall maintain a TANGIBLE PRESENCE AND COMMITMENT to the downtown through the location of the Town’s major municipal offices there. The Town should also encourage other local, state and federal governments to maintain similar commitments to the downtown.

It is true that, in many communities, the same factors that have caused private sector businesses to depart downtown areas have had a similar effect on the departure of some government offices. During the past two decades, in particular, government offices that had traditionally occupied locations in downtown areas have relocated to properties in the suburbs to gain space for parking, to provide for handicapped access, to obtain modern heating ventilation and cooling systems, or for other factors.

Fortunately, the exodus of government offices witnessed in other downtowns has not been a significant problem in Wake Forest. When the United States Post Office, for example, vacated its former building on South White Street, another office use stepped in to fill the void, completing an exemplary renovation of the old mail center.

Perhaps most significantly, plans for the new Wake Forest town hall will place this most important town administrative building in the same approximate location as the current town hall downtown. Bids have been accepted and ground will soon be broken for a prestigious new structure befitting of a revitalizing downtown area.

The importance of each individual commitment to maintaining business or government office space in the downtown area is important. Each downtown

area office worker plays an important role in sustaining retail, dining, and other service establishments in downtown. Town leaders have set a good example; private sector interests should be encouraged to do the same.



Policy D-7: The Town shall continue to support the Wake Forest FARMERS MARKET at the municipal parking lot in downtown Wake Forest. As the downtown area continues to evolve, a permanent home for the market may become necessary.

The Wake Forest Farmers Market is open every Saturday morning from April through November in the municipal parking lot on South White Street in the heart of the downtown. It is also open one Saturday per month other times of the year, plus a Special Holiday Market held each December. The market has fresh produce, cut flowers, free-range eggs, home-grown herbs, antibiotic- and hormone-free pasture-raised meats, baked goods, locally raised honey as well as local musicians and craftspeople.

While a permanent home for the market could be a positive step, it would be difficult to improve upon the current location on South White Street. Indeed, it is the downtown location and “street festival” atmosphere that reportedly brings so many buyers to market. Beyond the quaint and festive nature of the market, there are a great many other positives that the farmers market brings to the downtown area.

First, downtown area residents are in need of a full-service grocery store. Despite this need, the private sector has not yet stepped forward to invest in such a store. A diversified farmers market, offering a wide range of produce, meats, dairy products, fish, poultry, can be helpful in meeting every day food needs. These basic needs can then be supplemented by less frequent major shopping excursions to outlying supermarkets for nonperishable canned goods, paper products, etc.

Second, daytime office and retail workers represent a substantial buying population. A fresh market downtown would afford these workers the opportunity to meet some portion of their fresh product grocery needs before their journey home.

Third, many farmers markets, including Wake Forest’s, are significant tourist attractions. Well established farmers markets have been shown to complement other downtown area shops, restaurants and museums. Generally, eating concessions and a limited range of nonperishable items supplement but do not exceed the sale of fresh products. Thus, tourists can provide an important economic supplement to the mainstay purchases of permanent residents.

Policy D-8: The RENAISSANCE AREA URBAN CODE shall continue to be employed to ensure that development and redevelopment will be supportive of the architectural and historic context that is vital to the economic success of downtown Wake Forest.

The *Renaissance Area Urban Code* is an important tool for implementing the *Renaissance Plan for the Heart of Wake Forest*. This design code requires that all site plans in the downtown area be reviewed by the Planning Board and approved by the Wake Forest Board of Commissioners. The standards set forth in the code apply to all development, including new construction, renovations, remodelings, face lifts, repainting, and additions to existing structures. In addition, a Development Permit must be obtained from the Planning and Inspections Office before a project may commence.

Specifically, the Urban Code replaced the H-CBD and CBD districts in the Town Zoning Ordinance with the following new districts:

Historic Core (RA-HC)

The Historic Core of the Renaissance Area permits the sensitive continuation of the “Main Street” environment of White Street and its secondary streets. The ground floor of buildings on White Street should be comprised of active uses including retail or restaurants with office and residential located on second stories. Side streets east of White Street may have a greater variety of ground floor uses.

Urban Center (RA-UC)

As with the Historic Core, the Urban Center accommodates an active, pedestrian-friendly area of commercial, residential, office, and civic uses in both vertically mixed-use, as well as free-standing buildings. Retail should be placed at street level, with residential uses in rear or upper stories. Larger buildings are more easily accommodated in this area due to the presence of larger parcels.

Campus (RA-C)

The Campus area, while predominately comprised of civic, assembly, and institutional uses is encouraged to be mixed-use in overall composition while maintaining a close integration with the natural surroundings. Streets in this area should be planted with a regular spacing of canopy trees and parking lots should be away from the pedestrian realm.

The influence of such standards on investment decisions will continue to be key. On one hand, such standards can have a positive effect in protecting investments in the downtown area from inappropriate intrusions and

declines in property value. On the other hand, care must be taken to see that such standards do not become so onerous as to inhibit investment in the downtown area. Over the long run, however, there should be little doubt as to the importance of such standards to the future economic and cultural role of downtown Wake Forest to the future of the town.

Policy D-9: The Town should encourage efforts to restore MISSING STREET OR UNDERUTILIZED FRONTAGES, particularly on lots where previous buildings have been demolished and replaced with (oftentimes) surface parking.

In downtown areas, when a building is destroyed it is often referred to as a “missing tooth”. This is because in downtowns, the majority of buildings do not stand alone, but are generally part of up a continuous or near continuous wall of buildings fronting on the street. The missing tooth analogy is appropriate, given the unsightliness of a missing tooth and its overall impact on appearances. Such impacts are especially dramatic when the location of the missing building(s) is at a street corner, where the absence of the building is noticeable from four directions.

Unlike suburban areas, where buildings have little relationship to the street, downtown areas depend upon buildings to help create the “room” of the street. It is the presence of a continuous wall of buildings that creates a sense of place, as well as pedestrian comfort and interest along the sidewalk. This policy therefore puts the Town on record as supporting efforts to restore downtown area streetscapes through new building construction on empty or underutilized lots.

Policy D-10: PARKING LOTS should generally be located to the side or behind buildings or in the interior of the block. Off-street parking spaces for multi-family buildings should be in the rear yard.

Just as a demolished building can leave a “missing tooth” along a downtown streetscape, so too can a poorly placed parking lot leave a similar impression. The Renaissance Plan for the Heart of Wake Forest, as well as the accompanying Urban Code Handbook, affirm this concept by calling for a continuous façade of buildings along each block in the traditional downtown commercial core. The Urban Code calls for parking to be located to the rear of buildings or in the interior of the block, generally hidden from the pedestrian realm of the sidewalk. Similarly, parking for multi-family buildings should be located to the rear of the structures, saving the fronts of buildings to help create an appealing, pedestrian-oriented streetspace.

Summary of Policies for Downtown Wake Forest

Policy D-1: The Town should encourage a COMPATIBLE, DIVERSE MIXTURE of retail, office, institutional, residential, dining, services, entertainment, and public open space in the downtown area.

Policy D-2: While encouraging a diversity of uses and activities in the downtown area, the Town recognizes the advantages of CLUSTERING SIMILAR ACTIVITIES and development forms in appropriate parts of the downtown.

Policy D-3: PEDESTRIAN ORIENTED STREETScape IMPROVEMENTS including, but not limited to, wider sidewalks, street trees, decorative street lights, street furniture, and landscaping should be continually expanded consistent with the historic, pedestrian character of the downtown and to stimulate continued economic development.

Policy D-4: New and expanding businesses requiring office space should be directed first to COMPATIBLE BUILDINGS AND SITES IN OR NEAR THE DOWNTOWN AREA.

Policy D-5: OFFICES and ASSEMBLY TYPE USES WITHIN THE HISTORIC COMMERCIAL CORE of the downtown should be located on upper floors, reserving ground floor space for retail uses.

Policy D-6: The Town shall maintain a TANGIBLE PRESENCE AND COMMITMENT to the downtown through the location of the Town's major municipal offices there. The Town should also encourage other local, state and federal governments to maintain similar commitments to the downtown.



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Parks, Open Space and Recreation

Summary of Issues

Quality parks and recreation facilities are one of the key features that separate communities with a high quality of life from those that claim to but do not. In some communities, parks, open space and recreation are viewed as features that are nice to have, but are clearly of secondary importance when compared to other *essential* services such as law enforcement, fire protection, public works, etc. This is unfortunate. In today's mobile society and high tech driven economy, businesses and people can relocate to anywhere they choose, and they are increasingly choosing communities that offer a high quality of life.

Fortunately, Wake Forest is committed to maintaining a quality community, including the provision of an excellent parks system. Moreover, the efforts of the Town to create an enviable parks program would not be possible without the support of the voters who, in 2005, approved a \$7 million bond referendum to fund land acquisition and park development. The most tangible evidence of this commitment may be seen in the Town's actions to acquire and develop several significant new park facilities in Wake Forest:

Flaherty Park, occupying 100 acres in the northeast area of the town, began with three lighted baseball and softball fields completed in 1996. In 2001, a community center was built, along with the park's first four tennis courts. Four more tennis courts, plus a playground and dog park were added in July 2007. Forty acres of the park property are a former landfill and serve as a firing range for the Town Police Department.

Joyner Park, consisting of 117 acres in the northwest area of the town, was acquired for \$4.1 million in 2003. A Master Plan for the Park was prepared and approved in 2004. Phase 1 of the master plan calls for an outdoor amphitheater, maintenance shed, the restoration of farm buildings and a pecan grove, along with the addition of a new log cabin. Phase 2 will include two baseball fields, two soccer fields, a playground and restrooms. Phase 3 will add a community center.

Heritage High School Athletic Facilities will encompass about 20 acres of ballfields on the grounds of this new high school in south central Wake Forest. Another 20 acres will be reserved for a greenway. Developed in partnership with the Wake County School System, the Town participated in the purchase of the property and is sharing in the costs of developing athletic facilities on the site. Currently under construction, it is expected that by the fall of 2009, there will be 4 new soccer fields, 4 baseball fields, and six lighted tennis courts.

These major new park facilities, combined with the Town's on-going efforts to expand and improve upon a whole system of parks and greenways, place Wake Forest in a very favorable light for those considering a move to the community.

Further, the Town continues to effectively employ short and long range plans when implementing park, open space and greenway improvements. Among these plans are:

The Town's *Parks and Recreation Master Plan* (1996), which set the stage for a number of significant accomplishments including:

- A community center and tennis courts at Flaherty Park
- Arrangements for joint development of athletic facilities at Heritage High School.
- Acquisition of the Joyner Park property and preparation of a master plan for its development.
- Upgrades to the swimming pool at Holding Park.
- Acquisition and development of the Smith Creek Soccer Center.



Flaherty Park



- Approval by the voters for two bond issues for park facility development totaling over \$10 million.

The Wake Forest *Open Space and Greenway Plan* (2002), which proposed a coordinated system of linear open spaces and trails for the entire town. The Plan identified a series of largely parallel north-south and east-west greenway corridors and associated trails, and spawned the creation of a number of greenway segments in the community. Currently, (2008) the Greenway Plan is being updated and improved to set forth a specific course of action for priority greenway segments.

The Town's *Recreation Participation and Preference Survey* (2003) provided for a benchmark examination of citizen preferences for future park and recreation improvements.

The more recently prepared *Master Parks and Recreation Master Plan* (2005) updated the 1996 Plan and identified new priorities for park and recreation improvements for the period through 2015. The plan also established a number of goals and objectives to guide park and recreation improvements.

Many of the policies contained in this section are intended to dovetail with the recommendations of these long range plans.

Policies for Parks, Open Space and Recreation

Policy PR-1: The Town, in cooperation with private sector interests, should continue to develop a system of open space greenways and walking trails to connect residential areas with, especially, schools and park facilities. The use of (1) natural corridors such as streams and floodplains, and (2) man-made corridors such as utility and transportation rights-of-way and easements, should be emphasized.

The Town of Wake Forest is blessed with an urban pattern of development, stream configuration, and utility and transportation corridors that offer good opportunities for greenway development. The greenway concept encourages the use of natural corridors such as river and creek floodplains for linear park systems. These natural corridors are supplemented as necessary by man-made corridors, such as utility and transportation rights of way, to assemble a complete, interconnected system of linear park spaces within the community.

Greenways offer enjoyable walking opportunities to the elderly, a population group that will soon swell with the ranks of the baby boom generation. Greenways can also afford safe, off-road paths for children between home and school, home and the park, etc. Further, in Wake Forest's reasonably modest terrain, greenways offer the possibility for development of bike-way trails from residences to shopping or even to places of employment. In some instances, this may require the construction of "neighborhood connectors" or "spurs" leading from a neighborhood area to a greenway trunk line.

Wake Forest's *Open Space and Greenway Plan* (2002) identified several area streams, including Horse Creek, Richland Creek, Smith Creek and Sanford Creek as presenting good opportunities for greenway development. Of these creeks, the Smith Creek Corridor, running north and south through the middle of the town, was tagged as the highest priority for Phase 1 of a community-wide greenway system. Complementing this north-south greenway along Smith Creek will be an east-west greenway within the Wait Avenue/Durham Road corridor. Phase 2 of the Greenway Plan calls for another north-south running greenway along Richland Creek and a second east-west running greenway along Purnell Road. Eventually, the greenway system is expected to extend eastward as far as Rolesville.

Significantly, the Town has done much more than just talk about greenways. The Greenway Advisory Board, originally established as a subcommittee of the Recreation Advisory Board, is now a full fledged board of its own. Over 3 miles of greenways have already been built, and several new segments are to be added in the near future. Several greenway segments have been dedicated and constructed in conjunction with private sector developments. Existing greenway segments include:

- A ¾ mile segment from Burlington Mill almost to the wastewater treatment plant.
- A ½ mile segment in the Heritage Development at the Smith Creek Soccer Center (Design work is about to start on the extension of this greenway north of the Soccer complex with construction all the way up to the pedestrian culvert under the 98 Bypass.)
- A ¼ mile segment at Olde Mill Stream (recently paved)
- A ¼ mile segment behind the post office and the library
- A 1 mile segment along Sanford Creek within the Heritage South development.

Finally, it should be noted Wake Forest's greenway system will serve the multiple objectives of open space preservation, transportation, recreation, floodplain management, wildlife conservation, cultural awareness, and a host of other purposes. The Town's recently prepared *Renaissance Plan*

The movement to create greenways is one excellent way to bring nature to the city. Greenways bring a wealth of space and a mix of natural resources into the city all at one time. The strings that hold the web of life together in a natural area are left intact when long corridors are allowed to survive. The threads give strength and depth to the urban forest. There are opportunities for trails and waterways, room for wildlife, space for trees and shrubs to thrive.

Gary Moll, 1989

Small parks, if they are popular, knit together their neighborhoods from different sides, and mingle the people from them.

Jane Jacobs, 1961



Kiwanis Park

for the historic heart of Wake Forest, for example, acknowledges the role that greenways can play in connecting the downtown to the rest of the community. Similarly, the Town's *Transportation Plan*, *Bicycle Plan* and *Pedestrian Plan* all recognize the significant opportunities that greenways present. This plan therefore urges continued development of a greenway system as a defining feature of Wake Forest's open space and alternative transportation system.

Policy PR-2: Mini-parks should continue to be supported in existing and proposed neighborhoods to meet the needs of small children and the elderly, and to encourage social interaction and mutual support among area families. Arrangements for some maintenance of new mini-parks by homeowners associations, civic organizations, volunteers, and others should be pursued.

Considering the expense of park maintenance, it is understandable that most park programs today, including Wake Forest's, are moving away from the neighborhood mini-park. Repeatedly mobilizing grounds crews for the purpose of maintaining multiple, small, and scattered park sites often presents an inefficient use of labor and equipment. Yet, national studies have confirmed that a majority of the American public would prefer that future parks and open spaces be close to home, i.e. within walking distance. Further, the Town's current *Master Parks and Recreation Plan* (2005) includes the following statement:

"While not a primary focus of park development, the Town will maintain the existing Mini Parks and remain open to the possibility that small sites, 2 acres or less in size, may be suitable for limited recreation opportunity in underserved areas." (page 30)

The view of the Parks and Recreation Department is that existing mini-parks should continue to be supported and that new mini-parks may be accepted on a case by case basis. Obviously, if a new mini-park serves a real need and is located where it can be maintained efficiently, then its acceptance into the Town's park system is more likely.

This plan echoes the current informal position of the Town to support mini-parks, especially in the older, walkable areas of the town and in new, compact neighborhoods yet to be. Maintenance of such facilities may require innovative approaches involving some combination of town crews, private contractors and/or volunteers. Residents in the immediate vicinity of these small parks will need to understand that with the benefits of new parks and attractive open spaces close at hand comes a commitment for a greater level of individual and neighborhood responsibility. (See Policy PR-6.)

Policy PR-3: Neighborhood and mini parks should be located in full view of residential and/or non-residential activities, where informal observation and oversight can help prevent vandalism and improve security.

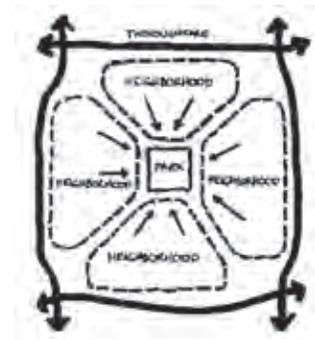
Smaller parks should be located where people can naturally congregate. Not only does this increase the use of the park, but *it also puts many eyes on the park*. By placing new, smaller parks where houses or businesses face them, the mere presence of many informal supervisors (i.e. people in general) helps prevent various forms of mischief and vandalism. This principle most easily applies to so-called “vest pocket” or mini-parks; equally important, however, are opportunities to apply the concept to other, somewhat larger open spaces, such as neighborhood parks. Rather than putting modestly sized parks on sites removed and/or screened from the view of homes and businesses, the location and design of future small parks should be carefully coordinated with neighborhood designs that place the park within view of many eyes.

In the context of the neighborhood planning area, neighborhood parks offer a natural meeting place for residents from the various residential enclaves that surround it. Neighborhoods of varied home values (and therefore diverse economic levels) may come together around the park in much the same way that the petals of a flower join together at the blossom’s center. Meanwhile, the preparation of individual neighborhood plans should identify suggested locations for common, neighborhood park sites.

Policy PR-4: New residential development should provide for funding to help meet the demand for open space and recreation created by the development.

North Carolina enabling legislation has, for many decades, allowed local governments to require new subdivisions to set aside or “dedicate” a certain proportion of a new development for open space and recreation. This requirement reflects a philosophy of town planning dating back over 100 years, when small park areas were considered an essential component of any healthy, desirable neighborhood.

A “10% dedication standard”, for example, would require that five acres of a fifty acre development be reserved for open space. In recent years, this principle has been expanded beyond simple acreage percentages, to create a *rational nexus* between the *type of development* being proposed and its likely *demand* for open space and recreation. Using this principle, for example, a “1 acre per 20 housing unit” standard, would require 100 housing units to also set aside five acres for open space, regardless of the total acreage in the development.



We may well remember the value of little open spaces, spots where folk may repair from the bustle of the street to stop and rest awhile; very small spaces may serve such purposes.

Raymond Unwin, 1909

Conventionally, neighborhood parks or parklike open spaces are considered boons conferred on the deprived population of cities. Let us turn this thought around, and consider city parks deprived places that need the boon of life and appreciation conferred on them. This is more nearly in accord with reality, for people do confer use on parks and make them successes—or else withhold use and doom parks to rejection and failure.

Jane Jacobs, 1961

Alternatively, instead of setting aside land, another way to ensure that parkland keeps up with new growth, is to require a *recreation impact fee*. Under this option, impact fees paid by the developer/builder are deposited into a special trust fund set up by the Town specifically for parks, open space and recreation. The *impact fee* option corrects for situations where a development involving just a few housing units would not yield sufficient open space to be useful. Impact fees also avoid the issue where a developer might want to set aside undevelopable wetlands or other unsuitable land— areas also unsuitable for recreational use.

Further, the *impact fee* option ensures that small subdivisions, not just the larger ones, also provide for a proportionate, fair share of the open space needs of area residents. Because of its fairness and flexibility, the *impact fee* approach is one that the Town of Wake Forest has adopted. Beginning around 1996, the Town began collecting recreation facility impact fees on new residential developments. The current fee structure requires a payment of \$1086 for each single family detached home, and \$945 for each single family attached or multi-family unit.¹ Of note, these amounts are estimated to be only 40% of the true impact and cost of new homes and their residents on the recreation facilities of the Town.²

Policy PR-5: The Town of Wake Forest supports the co-location, joint development and shared use of park, open space, and recreation facilities in cooperation with institutions such as public schools, utility companies, and federal, state and local government agencies.

Several public school sites, a seminary campus, numerous utility corridors, and the properties of various government entities are all located within the corporate limits of Wake Forest. Each of these institutions affords opportunities for joint development and use of parks, recreation and open space facilities, as well as utility and road corridors and other publicly held lands. Joint use agreements make good sense, stretching tax dollars further, and maximizing the utilization of available lands and facilities.

In the case of school facilities, for example, gymnasiums and athletic fields are more likely to be used during the day by students in school, and during the evening and on weekends by the community at large. To its credit, Wake Forest has been proactive in working out joint use agreements with Wake County Schools for each of the public school facilities located in the town. The new Heritage High School, for example, already has a joint use

¹ Statistics generally bear out that single family detached homes normally have larger household sizes, thereby creating slightly more demand for parks and recreation than apartments, townhouses, and condos.

² Interview with Wake Forest Parks and Recreation Director Susan Simpson, March 22, 2008.

agreement in place between the Town and Wake County Schools, ready to go into effect as soon as construction is completed.

While there are no ballfields at the Southeastern Baptist Theological Seminary, the campus did accommodate T-ball play at one time. The seminary also has a gymnasium, but the college keeps it fairly well programmed. At the present time, there are no plans to pursue joint use agreements between the Town and the Seminary.

In the case of utility corridors, the City of Raleigh has taken over responsibility for maintaining sewer lines in the town. Gravity sewers often parallel streams and frequently lend themselves well to greenway development. This is particularly true when the sewer line is within a public easement which may have a graded maintenance road or path already in place. Similar opportunities can sometimes be found in power line corridors. Such corridors can be especially useful when there is a need to make a cross-connection between greenway segments running in parallel creek basins.

This policy therefore supports the Town's efforts to work proactively with these various institutions, utility companies and government agencies to jointly develop, maintain and share park and recreation facilities, and to preserve open space whenever such opportunities arise.

Policy PR-6: As the Wake Forest park system grows, the Town should continue to seek efficiencies, cost savings, and quality services for park maintenance.

A major concern in parks and recreation administration today is in the area of maintenance and grounds keeping. With each new addition to the park or open space system of the Town, comes a permanent commitment for perpetual care of the facilities. In some communities, parks personnel not only look after the grounds at public parks, but also maintain median strips, street plazas, street trees, public flowerbeds, and cemeteries. Fortunately for the Wake Forest Parks and Recreation Department, the Town assigns responsibility for street right of way and cemetery maintenance to the Streets Division of the Public Works Department.

Even so, the Wake Forest Parks Department currently maintains ten town parks, including 110 acres of parkland. In the near future, Town parkland acreage is expected to more than double as Joyner Park (117 acres) and other facility expansions come on line. In addition, the department also has maintenance responsibility for some twenty public buildings owned by the Town.

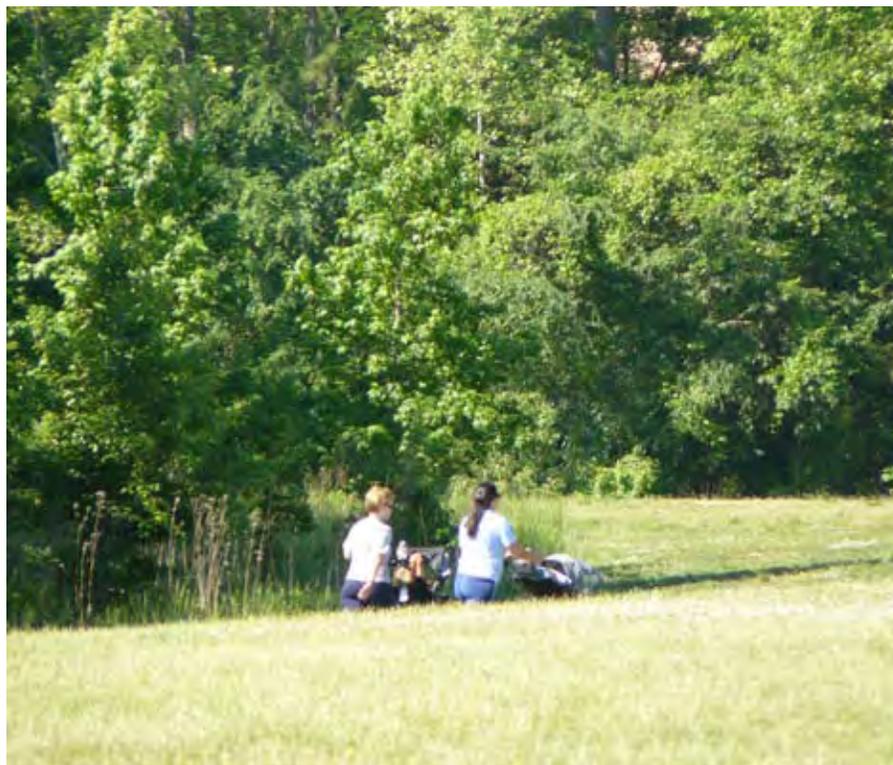


Joyner Park

To address the upkeep of Wake Forest's park and recreation facilities, the Town employs seven full-time maintenance workers, including a Facility Maintenance Supervisor. Of the seven, three are assigned to general landscape maintenance and two others work primarily on ballfields. All workers share responsibility for handling trash and maintaining bathrooms. Another looks after the inside of all public buildings owned by the town.

Because of the continuing increases in the costs of park maintenance, the Town of Wake Forest periodically examines other options for such tasks, including opportunities for privatization and volunteerism. Volunteerism, while attempted with limited success in the past, may need to be revisited. Adopt-a-trail programs may be especially helpful with regard to greenway clean-up and some forms of maintenance.

At the same time, privatization may offer promise for some aspects of parks or open space maintenance that do not easily lend themselves to volunteerism. Large-scale grounds maintenance, tree trimming, rest rooms, etc are but a few of the possibilities that are better suited to private sector contracting than volunteerism. With Joyner Park and other facilities bringing more property into active use, pressures for privatization of some mowing and other services may increase. While there are no plans to contract out maintenance services currently handled in-house by Town employees, the possibility of doing so should be considered from time to time as conditions and requirements change.



Greenway trails at Joyner Park

Policy PR-7: The Town should continue to explore new opportunities for providing recreation programs with all available partners.

Recreation programming consumes an enormous amount of the resources available within most parks and recreation departments. The Parks and Recreation Department of Wake Forest is no exception. The Recreation Department seeks to leverage its limited resources by partnering with a number of civic clubs and community sports organizations for fund raising in support of a wide range of recreation programs. Examples of these clubs and organizations include the Wake Forest Tennis Association, the Greater Wake Forest Area Baseball Commission, Resources for Seniors, the Kiwanis Club, the Rotary Club, the Capital Area Soccer League, and the Wake Forest Cultural Arts Association.

As the number of recreation sites, programs and participants are set to expand dramatically in the near future, the Town must continue to take advantage of opportunities for partnering with community sports organizations and civic clubs in providing for recreation funding and programming.

Summary of Policies for Parks, Open Space and Recreation

Policy PR-1: The Town, in cooperation with private sector interests, should continue to develop a system of open space greenways and walking trails to connect residential areas with, especially, schools and park facilities. The use of (1) natural corridors such as streams and floodplains, and (2) man-made corridors such as utility and transportation rights-of-way and easements, should be emphasized.

Policy PR-2: Mini-parks should continue to be supported in existing and proposed neighborhoods to meet the needs of small children and the elderly, and to encourage social interaction and mutual support among area families. Arrangements for some maintenance of new mini-parks by volunteers should be pursued.

Policy PR-3: Neighborhood and mini parks should be located in full view of residential and/or non-residential activities, where informal observation and oversight can help prevent vandalism and improve security.

Policy PR-4: New residential development should continue to provide for funding to help meet the demand for open space and recreation created by the development.

Policy PR-5: The Town of Wake Forest supports the co-location, joint development and shared use of park, open space, and recreation facilities in cooperation with institutions such as public schools, utility companies, and federal, state and local government agencies.

Policy PR-6: As the Wake Forest park system grows, the Town should continue to seek efficiencies, cost savings, and quality services for park maintenance.

Policy PR-7: The Town should continue to explore new opportunities for providing recreation programs with all available partners.





Streets

Summary of Issues

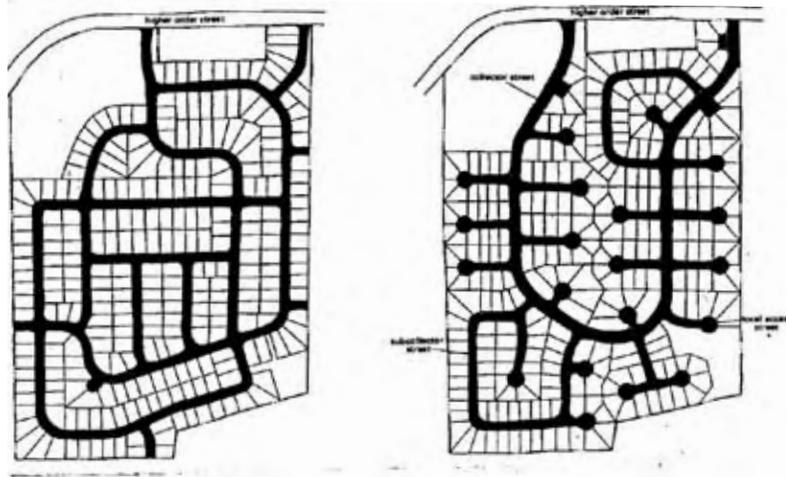
For the past fifty years, the system of thoroughfare planning and street layout employed in the United States has directed the great bulk of all new traffic onto a limited number of major and minor thoroughfares. The old-style, gridiron network of streets, which provided for a multitude of alternative routes, was discontinued as towns and cities grew out into the suburbs. Instead, most new residential subdivisions today are designed to funnel all incoming and outgoing traffic to just one or two outlets- and usually onto the closest thoroughfare. At the same time, an emphasis on separating residential areas from places of work and shopping has created a near total dependence on the automobile for daily activities.

Land use and thoroughfare planning in Raleigh and Wake County, as well as Wake Forest, has unfortunately followed a similar course, funneling traffic and separating homes from other land uses. Today, the consequences of this twentieth century suburban model of development are evident as the area's few major thoroughfares struggle to keep up with ever growing traffic volumes. Major streets like Capital Boulevard and Wait Avenue/ Durham Road must meet not only the needs of commuters, but must also absorb the traffic generated by numerous short distance errands.

Suburban residents of Wake Forest, separated and unconnected from places of work, shopping, and gathering, must rely upon their automobile

BAD STREET PLANNING

ENDORSED: The two contrasting street layouts to the left were taken from a 1980 publication entitled *Performance Streets: A Concept and Model Standards for Residential Streets* by the respected Bucks County, Pennsylvania Planning Commission. In the booklet, the authors are critical of the well connected, walkable network of streets on the far left for “failing to collect traffic and direct it to an increasingly higher order street”, like the “preferred” layout on the near left. (Note the abundance of cul de sacs and only two ways out of the development.)



to get to nearly every activity outside the home. Whether it is to retrieve a gallon of milk, or chauffeur a son or daughter to an activity at school, most trips involve at least some leg of the trip on one of the town’s few thoroughfares. As a result, traffic counts on many of the town’s most important streets, including Capital Boulevard, South Main Street, Wait Ave/Durham Road and Stadium Drive, among others, have been increasing at many times the rate of the town’s population growth.

A city plan must ever deal mainly with the direction and width of its streets.

Daniel Burnham, 1905

Fortunately, Wake Forest is beginning to change the way new residential and commercial service areas are connected (or not connected). In the past few years, the Town has begun to rethink the dominant suburban model of separated land uses and unconnected streets. In doing so, it is allowing, even encouraging, new mixed use developments with residential and non-residential activities within walking distance of each other. This new approach to land use and transportation planning is exemplified by Holding Village and hopefully, other developments yet to follow. It will no doubt take many years to slow the rate of traffic increases but, eventually, such mixed use patterns will allow major thoroughfares to focus on carrying cross-town traffic while permitting minor local streets to play a greater role in serving local errands.

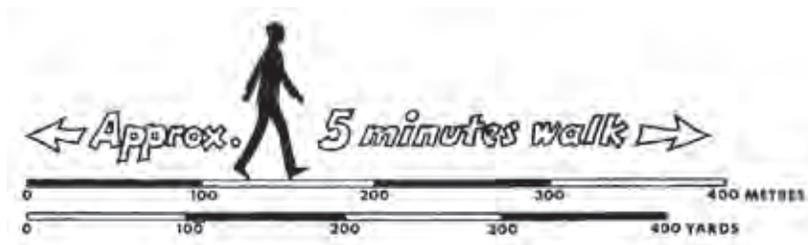
Finally, note that the policies of this plan do not advocate blind adherence to the uncompromising, rectilinear, grid iron street systems of old. Topographic influences and limitations of stream crossings are among the many valid constraints that must be considered when laying out a street system. Rather than indiscriminant rows of parallel streets, experience shows that the most successful street systems take on a modified grid system that responds to topographic conditions and creates inviting, useful building sites and spaces.

Policies for Major Streets

Note: The term “major street” is used interchangeably with the term “thoroughfare” in this section. Also of note, while the Transportation Plan for the Town of Wake Forest currently distinguishes between “major” and “minor” thoroughfares, the policies of this plan generally do not require such distinctions. Most policies simply recognize that some major streets will be larger than other major streets.

Policy S-1: Major streets should be spaced NO MORE THAN ONE MILE APART east to west and north to south, and preferably closer, whenever topographic and other physical conditions allow.

In addition to carrying cross-town traffic, major streets (meaning both major and minor thoroughfares), also define neighborhood planning areas¹ (i.e. if major streets are spaced no more than one mile apart, they will form neighborhood planning areas of no more than one mile square). The spacing of the Town’s major streets therefore, has important implications for neighborhood design and pedestrian mobility.



Many people will walk, rather than drive a car, if their destination is less than a quarter mile away.

Studies have shown that many people will walk one-quarter mile (about 5 minutes) rather than using their car over the same distance. (It often does not make sense to go to the trouble of using and parking the car over such a short distance.) With this understanding, an area approximately one-quarter mile in radius from the center of a neighborhood planning area can be captured as a “pedestrian pocket”. Residents of the remaining areas outside this one-quarter mile radius pedestrian pocket, but within the one square mile neighborhood planning area can still reach the center by bicycle or car. Alternatively, it may be better to provide for more than one pedestrian pocket within a single neighborhood planning area, thereby bringing an even larger number of residents within convenient walking distance of neighborhood services. In addition, if the spacing of

¹ For the purposes of this plan a “neighborhood planning area” can be defined as an area of town, no larger than 1 mile on each side and generally bordered by major streets, across which a middle school-aged child would not be comfortable crossing on their own. Thus, it defines an area of within which pedestrian movement is generally unconfined.

Drainage will not run uphill to suit the prettiest plan; nor will people, to please the most imperious designer, go where they do not want to go or abstain from going where they must go.

Raymond Unwin, 1909

major streets east and west or north and south is significantly more than one mile, there is a greater tendency for motorists to try to cut through the neighborhood planning area rather than going “around the horn”.

Another impact of major street spacing can be observed by the effect that the newly constructed NC 98 bypass has had on traffic patterns east and west through town. Before the Bypass was built, some motorists heading from the east side of town to the west side would take a very convoluted route to avoid passing through the congested center of town. Entering town from the east on Wait Avenue, they would turn south on Franklin Street to Holding Avenue, then west on Holding, including doglegs as necessary, to Tyler Run, then north on Tyler Run before picking up Durham Road on the west side of the downtown. The new Bypass has virtually eliminated the need to follow that circuitous route through town. Further, once the last leg of the Bypass is completed from Capital Boulevard to Durham Road, additional relief to traffic congestion on other streets will be provided.

Finally, it must be emphasized that very few “major” streets need to be built as limited access roadways for this policy to be effective. As will be seen later in this chapter, cross-town streets with frequent, predictable intersecting streets have the potential to carry more traffic per lane than limited access highways. Further, it should be noted that strict adherence to a policy of placing major streets in a one mile (or less) grid will not always be possible in the rolling, stream-dissected topography of Wake Forest. The policy simply states that this is a goal to be pursued, provided that topography and other constraints can be overcome.

Policy S-2: ACCESS TO UNDEVELOPED SECTIONS of major streets shall be from intersecting minor streets, rather than private driveways, whenever possible.

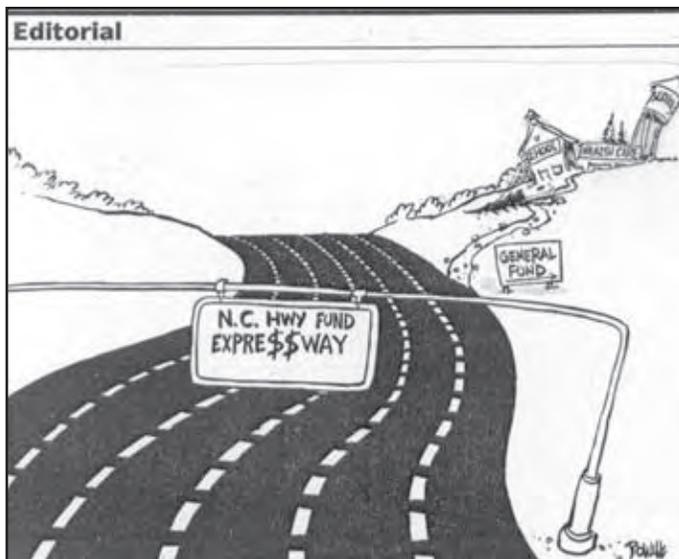
This policy seeks to preserve the traffic moving capability along undeveloped sections of the Town’s major streets, and in so doing, protect the investment of the taxpayer in the costs of road construction. In the past two decades, the cost of building new thoroughfares and making road improvements has risen to levels that easily warrant attention. Consider these examples:¹

- \$11.5 million or nearly \$7.5 million per mile, was the successful bid for the final section of the NC 98 Bypass, a 1.55 mile long segment from Capital Blvd to Durham Road. With this final section completed, the whole Bypass will be about 4 miles long.

¹ As reported in the Wake Forest Gazette, Road Roundup January 17 and February 13, 2008.

- \$1 million is budgeted to widen South Main (U.S.1-A) to 3 lanes, 2 travel lanes and a turning lane, from Forbes to Forestville Road.
- \$2.2 million is the projected cost to widen Stadium Drive to three lanes from Rock Spring Road to Capital Boulevard.
- \$5.2 million is the most recent cost estimate to build roundabouts on South Franklin Street at its intersection with East Holding and East Elm avenues and to install a treed median on Franklin between those two streets. (The original estimate for this project was \$2.4 million)

Obviously, of these projects the Bypass is a limited access thoroughfare, and the other streets mentioned are already largely developed. The point of providing this cost information is to indicate the magnitude of taxpayer dollars at stake with regard to road construction and improvements. Given the costs involved, the Town can ill afford to destroy the traffic carrying ability of the remaining undeveloped sections of its few major streets. Nor should the Town allow unnecessary driveway cuts to neutralize the value of road construction dollars provided by Federal, State and local taxpayers. (Frequent driveways allow for unpredictable stops and vehicle turning movements, causing increased congestion, and greater opportunities for traffic accidents.)

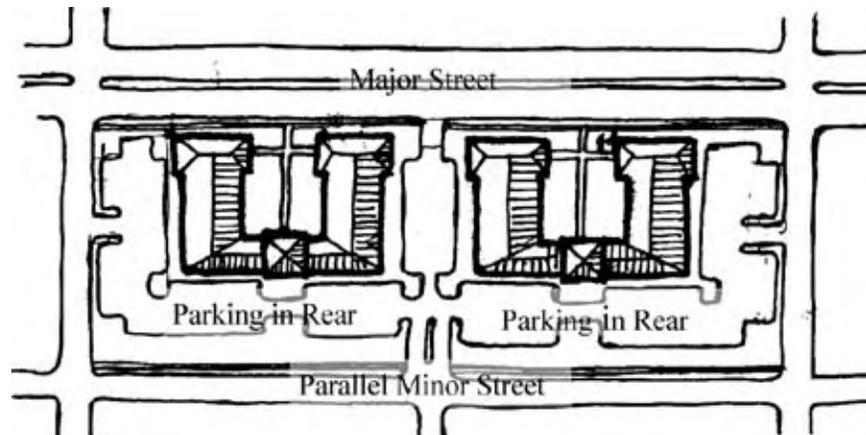


By permitting access to undeveloped sections of major streets only from intersecting minor public streets, the traveling motorist will benefit from a less congested, safer street. At the same time, the taxpayer has a greater assurance that future tax bills for road construction will not throw good money after bad.

With this arrangement, new businesses or subdivisions would be required to gain access first to either: (a) an intersecting street or (b) a smaller street parallel to the major street. The smaller parallel street could be in the form of a *frontage street* separated by a median strip from the through lanes of the major street, or it might be in the form of a *backage street*, running directly behind the business or subdivision, also parallel to the major street. In the latter case, a parallel street running behind a number of businesses

A MINOR BACKAGE STREET

running parallel to a major street, but behind the buildings, allows buildings to be pulled up to the major street, and most of the unsightly parking areas to be placed in the rear.



has the added advantage of allowing convenient access to parking lots positioned behind the businesses, out of the sight of the traveling public. Buildings can then be pulled up closer to the major street, allowing for better exposure, and the incorporation of business signage into the building design rather than necessitating free standing, pole-mounted signs.

Finally, it must be recognized that there will be some properties where access to a parallel street or an intersecting public street is simply not possible. The property in question may be land-locked by surrounding parcels or by physical constraints, such as a stream or railroad. In such situations, a driveway directly onto the major street may be the only option available. When this is the case, the property owner should be encouraged to design an access point which minimizes disruption to the traffic flow, and to the extent possible, complements the pattern of street intersections, so as to minimize unpredictability and enhance safety for the motorist.

Policy S-3: Under specified conditions, minor streets should be located so as to intersect with a major street (other than a limited access highway) at REGULARLY SPACED, REASONABLY FREQUENT INTERVALS (400' to 600').

This recommendation will apply largely to undeveloped sections of major streets, but not limited access highways like the NC 98 Bypass. The

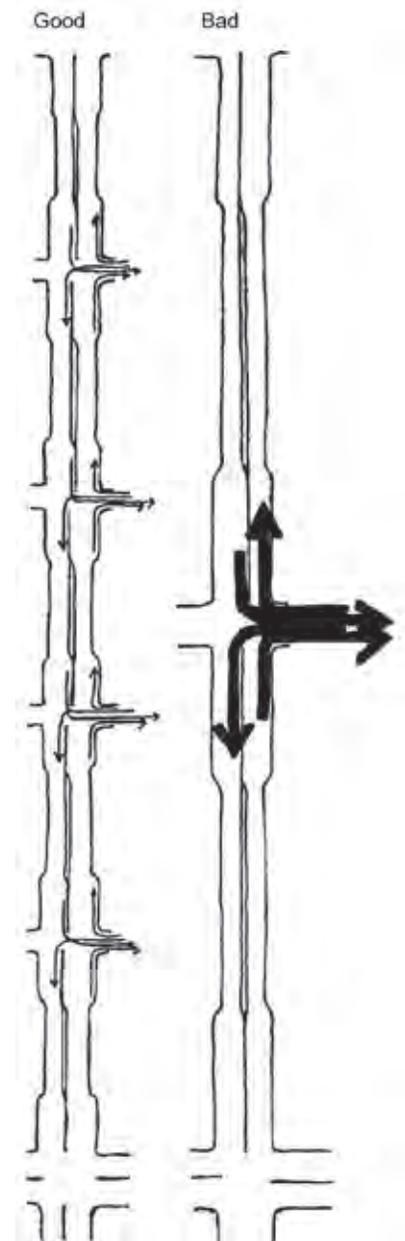
question then becomes: “What is the best way to provide at-grade access while preserving the traffic moving function of a major street?” This question requires a detailed answer for three reasons: (1) because the policy takes a contradictory approach to mainstream post-war practice regarding street planning and layout, (2) because it offers considerable benefit to the solution of long term traffic problems, as well as promoting good community design, and (3) because there are several conditions which must be in place when this policy is employed.

The Town currently relies upon the State Department of Transportation to establish and carry out access policy for those major streets maintained by NCDOT. Generally, DOT’s policy has been to limit access to as few locations as possible. Further, such access is preferred to be by “collector level” streets, thereby funneling traffic to a few controlled intersections. Despite the best intentions of this policy, experience shows that, as the surrounding area fully develops, this approach leads to traffic tie ups at these few access points. Over time, traffic *bottlenecks* occur at the few collector level intersections allowed. The bottlenecks result from motorists trying to get into and out of the interior of the adjoining land area through a very limited number of “portals”.

Practical examples of these bottlenecks, either now or in the near future, will be found during rush hour at the entrances to several of the town’s existing residential subdivisions. These include the Cimarron development off South Main Street, the Margots Pond neighborhood on the south side of town off Ligon Mill Road, and the Northhampton neighborhood east of town off Jones Dairy Road.

What do all of these developments have in common? They all have a relatively large number of lots that must rely upon a very limited number of portals for entering or exiting the development. While traffic problems may not be terrible today, the basic foundation for future problems has been set. Eventually, as the subdivision and surrounding area fully develop, motorists will experience problems entering and exiting the few portals of these limited access developments. To assist in letting people in and out of such a development, a traffic signal is then installed, thereby degrading the traffic moving ability of the major street.¹

¹ Traffic lights do more to degrade the traffic moving ability of roads than most other factors. So long as traffic does not come to a complete stop, the traffic moving ability of a traffic lane can be maintained at a fairly high level. In fact, studies have shown that the highest possible “throughput” of a traffic lane is approximately 2000 passenger vehicles per hour, when vehicles travel at about 30 miles per hour. This is because drivers generally follow behind one another in a more dense formation at 30 mph than they can safely do at higher speeds. So long as the line of traffic keeps moving, even if at a slower (25-30mph) speed, a larger volume of traffic can be moved efficiently. If, however, a line of cars must come to a complete stop at a traffic light, the traffic moving ability of the roadway plummets. More specifically, studies have shown that the addition of two traffic signals, 1000 feet apart, will reduce the traffic capacity of a major street by 75%. Therefore, one of the primary objectives of any highway access program which seeks to preserve the traffic moving integrity of a major street should be to avoid the need for traffic lights. (Source: Traffic Engineering Handbook, ITE Washington, DC)



THE TRAFFIC BOTTLENECK created in the example on the right will require a traffic signal, destroying the ability of the road to keep cars moving.

Suburban traffic problems are the planning plague of the 1990s. These problems will not go away until planners and policymakers understand how transportation and land use patterns affect one another, and until they make planning decisions that address traffic congestion by managing land use.

Lincoln Institute for Land Policy, 1991

While contrary to conventional traffic planning today, the better alternative is to distribute the volume of trips over a number of regularly spaced, reasonably frequent (i.e. every 400' to 600') streets.¹ Several very important conditions go hand in hand with this recommended street pattern; these conditions must be met for the method to be successful.

First, there must be little or no direct driveway access to the thoroughfare from adjacent properties. This means that motorists will be entering the thoroughfare only where predictable street intersections occur.

Second, a central median can be helpful in restricting crossing movements only to locations made available by the median. This means that all traffic movements into and out of the majority of streets intersecting with the thoroughfare will be a right hand turn. Note, too, that even if there is an opening in the central median at most public street intersections, the difficulty in crossing the traffic stream during rush hour traffic has a self-regulating effect; motorists soon learn that it is easier to make a right hand turn out during these periods. Thus, the motorist is given a measure of credit for common sense driving.

Third, for thoroughfares with design speeds of 45 mph or more, acceleration and deceleration lanes are advisable. This will help facilitate the smooth entry and exit of cars into and out of the higher speed travel lanes— necessary even at right hand turn entry portals.

Fourth, the land development and interior street pattern of the neighborhood planning area must adhere to the other principles outlined elsewhere in this plan. This means, for example, that large scale or high traffic volume developments are to be located only at the corners of neighborhood planning areas, i.e. at major intersections. It also means that some trips will be dispersed by the internal street network of the neighborhood planning area (i.e. providing an alternative to all trips immediately entering the major thoroughfare).

As an aside, frequent intersecting streets also ease the pressure from adjacent property owners who normally push for direct access from individual businesses to the thoroughfare. This is entirely consistent with Policy S-2 above. When streets are fairly frequent, access to adjacent properties is enhanced without compromising the integrity of the thoroughfare.

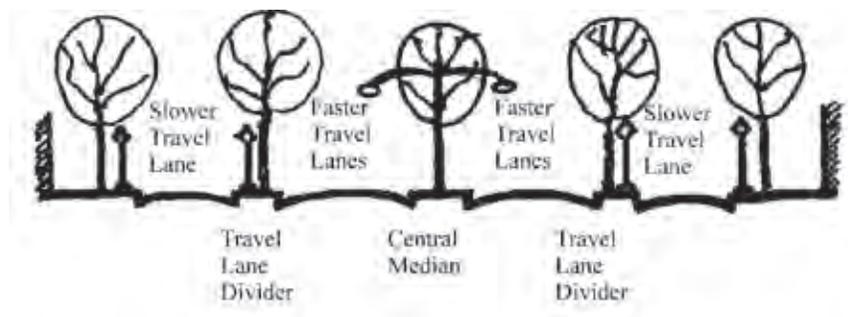
Finally, beyond solving the traffic problem, all of the conditions mentioned

¹ Traffic engineers typically recommend a minimum spacing of 250 feet between access points (including driveways) in 35 mph zones and a minimum spacing of 500 feet between access points in 45 mph zones. Policy S-3 considers access points to be intersecting public streets only; it excludes private driveways from consideration or use for reasons previously given.

above are just good planning—they will result in better, more livable neighborhoods where these policies are put in play.

Policy S-4: Central or travel lane divider medians shall be incorporated into the design of new or improved major streets whenever possible.

A central median or travel lane divider median can perform a functional as well as aesthetic purpose and improve the character of just about any street. Median strips can: (a) physically separate traffic moving in opposing directions, or in the same direction but at different speeds (b) prevent uncontrolled, unpredictable and unsafe traffic movements across (perpendicular to) the main flow of traffic, (c) create a safe landing for pedestrians part way *across* a major street, and (d) provide a planting area for landscaping and/or streetlights to enhance the traveling experience and image of the community.



PLANTED MEDIAN STRIPS help with traffic control, make major streets more amenable to pedestrians, and make for a more attractive community.

Further, there is a supportive relationship between Policy S-3 above, regarding access to major streets, and this policy, regarding central medians. When individual driveways are given direct access to a major thoroughfare, and no central street median is present, motorists may attempt to cut across the main flow of traffic during even the heaviest travel periods. If, however, crossing movements and u-turns are limited to locations controlled by openings in the central median (typically public street intersections) safe, predictable turning movements are encouraged. Even better, if access to the major street is limited to public street intersections, rather than individual driveways as per Policy S-3, the desire for crossing movements into and out of individual driveways is non-existent.

Policy S-5: Landscaping and, where possible, street trees should be planted in central medians of major streets.

The addition of landscaping and, where possible, street trees planted in a central median can do much to improve the image of the town's most

visible “windows to the world”. Obviously, the decision to plant trees in a central median is dependant upon safety factors such as the width of the median and the posted speed limit of the street. The posted speed limit on Capital Boulevard therefore renders that road an unlikely candidate for street trees, at least in the all important opinion of the NC Department of Transportation. Even so, the Boulevard could still benefit greatly from the addition of substantial landscaping. Along other streets where safety factors are favorable, however, the addition of full sized street trees in a landscaped central median would be effective in dramatically improving the appearance of the street corridor.

Policy S-6: Streetyard vegetation should be planted or retained along major streets to soften and unify the streetscape, and to create an attractive VISUAL EDGE TO THE ROADWAY while allowing views through to businesses. (Total screening may be required along limited access highways.)

Policy S-7: So as to provide visual cues to motorists approaching potentially hazardous street intersections, contrasting streetyard plantings should be employed along major streets to create DISTINCT CHANGES IN VISUAL CHARACTER between the landscape of intersections and the landscape of the properties between intersections.

Policy S-8: Special NATURAL, CULTURAL AND HISTORIC FEATURES along major streets should be preserved, accentuated and enhanced to add interest to the street corridor and to celebrate the heritage of Wake Forest.

Policy S-9: PARKING AREAS within a major street corridor should be generally screened from view using structural elements, topographic features and/or plantings. Plants should be tall enough at maturity to obscure views of parked cars. Service and loading areas should be completely screened.

The four policies immediately above were derived from recommendations included in the two special Corridor Plans prepared for Capital Boulevard (US 1) and the NC 98 Bypass. These particular policies have potential for application to major streets throughout the Town of Wake Forest.

In the town meetings held for the Community Plan, residents commented that the streets on which they most frequently travel are also the ones that they most dislike, both functionally and visually. There is near universal agreement, for example, that many commercial sections of Capital Boulevard and South Main Street are not representative of the Wake Forest community.

Whether as residents or visitors, more people “see” Wake Forest from Capital Boulevard than perhaps any other vantage point. This does not give those unacquainted with the Wake Forest community an accurate perception of the town. Fortunately, Town officials had the foresight to commission the preparation of a *US 1 Corridor Plan* in 1999. The plan offers an excellent set of recommendations for improving the visual image of land in the highway right of way as well as adjoining properties and buildings. This plan should continue to be implemented.¹

Similarly, the Town should continue to follow through on the recommendations of the *NC 98 Bypass Corridor Plan*, completed in 2003. Implementation of the landscape improvements of this plan should be able to move forward with greater confidence than those of the US 1 Corridor Plan, because the road conditions within the Bypass right of way should remain relatively unchanged for the foreseeable future.

Policy S-10: SPECIAL ROADWAY OVERLAY ZONING should be employed to help implement roadway corridor plans, particularly with regard to development standards for buildings, signage and parking areas within sight of the roadway.

As noted above, Wake Forest officials, recognizing the significance of Capital Boulevard and the NC 98 Bypass to the image of the town, commissioned two special highway corridor plans to study and make recommendations for improving the function and appearance of these major gateways into Wake Forest. These two plans set forth recommendations not only for landscape improvements but also for special development standards concerning buildings, parking, signage and more.

This policy suggests that many of the recommendations of the two corridor plans for Capital Boulevard (US 1) and the NC 98 Bypass can be translated into enforceable provisions within the Town’s zoning ordinance. Commonly known in other communities as special highway corridor

¹ Note: In light of plans to convert Capital Boulevard into a limited access highway, particular attention should be given as to how landscape improvements will be affected by a reconfiguration of the highway. It would be unfortunate to see trees planted in 2008 cut down 15 or 20 years later to make way for changes in the roadway.

The difficulties of such public control are undoubtedly very great, but the evils which result from absolute lack of control are even greater... That there may be great difficulty in establishing a criterion for judging hardly seems a sufficient reason for making no attempt whatever to criticize or veto buildings which, to quote Robert Louis Stevenson, “belong to no style of art, only to a form of business much to be regretted.”

Raymond Unwin, 1909

overlay districts, these special development standards normally apply to properties within a specified distance from the highway, e.g. 500 or 1000 feet. Thus the **recommendations** of each corridor plan with regard to the placement and design of buildings, parking, signage, landscaping and other factors can be converted into development **standards**, increasing predictability of decision-making for both developers and the Town.

Beyond US 1 and the new NC 98 bypass, several other major streets in the town should be considered good candidates for a special roadway corridor plan and associated zoning overlay district. These other streets might include, for example:

- S. Main Street between Capital Boulevard and the downtown area
- N. Main Street from the downtown area north to the town limits
- Durham Road from the downtown area west to the town limits
- Stadium Drive from the downtown area to Capital Boulevard

The Town’s effort in this regard will require considerable energy, including much involvement by property owners and the public in general. However, such efforts not only make the town more attractive and functional for residents, but also serve as one of the town’s most visible forms of self-promotion for quality economic development.

Note: The subject of special highway corridor controls is also discussed in the policy chapter on Commercial Areas.

Policy S-11: ROAD WIDENINGS and/or the DESIGNATION OF ONE-WAY PAIRS should generally be avoided for streets where the original design intent and relationship to adjoining land uses was otherwise. This policy is intended to prevent degradation of the design integrity and livability of an existing residential or commercial area for the primary purpose of moving greater traffic volumes.

This policy addresses road widenings or the designation of a one-way pair in existing, developed parts of town. Proponents of such actions argue that they are necessary to alleviate traffic congestion, and to allow for improved access from the suburbs into the older parts of the town. Unfortunately, most often the end result is quite the opposite such improvements make access to cheaper land, farther out, more convenient at the expense of the older parts of town. In other words, such widenings or one-way designations simply make suburban raw land and developments more accessible and attractive to the homebuyer than in-town neighborhoods or other close-in developments.

Meanwhile, residents and businesses located along such streets suffer the consequences of (1) more traffic lanes than the right of way was designed to accommodate and/or (2) greater traffic volumes than the street was ever intended to handle and/or (3) a general decline in the livability of the area through which the street passes. A better alternative is to channel the demand for ever more remote, automobile-dependent subdivisions into full service, mixed use neighborhoods closer in.

You can't pave your way out of congestion.

Author Unknown

Summary of Policies for Major Streets

Policy S-1: Major streets should be SPACED NO MORE THAN ONE MILE APART east to west and north to south, and preferably closer, whenever topographic and other physical conditions allow.

Policy S-2: ACCESS TO UNDEVELOPED SECTIONS of major streets shall be from intersecting minor streets, rather than private driveways, whenever possible.

A note on why adding another lane to the highway usually doesn't solve traffic congestion

People are often surprised at how quickly a major road, upon being widened for extra lanes, and often at enormous expense, becomes congested again. Where do all the cars come from so suddenly?

The reasons are not as difficult to understand as one might think. First, studies show that commuters who previously adjusted their travel times to avoid the peak rush hour, don't do so anymore. Second, commuters who had been relying upon another, less congested route, don't bother to use it anymore. Third, people who may have been carpooling before, may stop carpooling. Fourth, workers who chose to work elsewhere to avoid the congestion, may change their employment to take advantage of the "better drive time". Fifth, those motorists who previously would go out of their way just to

avoid driving on "that awful road" now return to it. And sixth, developers anticipate the opening of a new or wider road and place new subdivisions in the pipeline, to take advantage of buyers moving out to find cheaper home prices in the now more accessible suburbs.

The unfortunate result of all these individual decisions is that a road widening, costing tens of millions of dollars, may have a beneficial window of improved driving conditions and shorter travel times of, perhaps, two years. In light of adverse impacts on adjoining properties, a better option to widening may be to encourage mixed use developments closer in, require a true network of interconnected streets, and/or consider putting the taxpayers' money into a new parallel roadway, (no more than one mile away, as per Policy S-1).

Reducing the “cost” of travel by expanding the roadway is like cutting the price of an item in the supermarket: demand for it will suddenly rise.

Lewis Fulton, International Energy Agency, January 2000

Policy S-3: Under specified conditions, minor streets should be located so as to intersect with a major street (other than a limited access highway) at REGULARLY SPACED, REASONABLY FREQUENT INTERVALS (400' to 600').

Policy S-4: Central medians shall be incorporated into the design of new or improved major streets whenever possible.

Policy S-5: Landscaping and, where possible, street trees should be planted in central medians of major streets.

Policy S-6: Streetyard vegetation should be planted or retained along major streets to soften and unify the streetscape, and to create an attractive VISUAL EDGE to the roadway while allowing views through to businesses. (Total screening may be required along limited access highways.)

Policy S-7: So as to provide visual cues to motorists approaching potentially hazardous street intersections, contrasting streetyard plantings should be employed along major streets to create DISTINCT CHANGES IN VISUAL CHARACTER between the landscape of intersections and the landscape of the properties between intersections.

Policy S-8: SPECIAL NATURAL, CULTURAL AND HISTORIC FEATURES along major streets should be preserved, accentuated and enhanced to add interest to the street corridor and to celebrate the heritage of Wake Forest.

Policy S-9: PARKING AREAS within a major street corridor should be generally screened from view using structural elements, topographic features and/or plantings. Plants should be tall enough at maturity to obscure views of parked cars. Service and loading areas should be completely screened.

Policy S-10: SPECIAL ROADWAY OVERLAY ZONING should be employed to help implement roadway corridor plans, particularly with regard to development standards for buildings, signage and parking areas within sight of the roadway.

Policy S-11: ROAD WIDENINGS and/or the DESIGNATION OF ONE-WAY PAIRS should generally be avoided for streets where the original design intent and relationship to adjoining land uses was otherwise. This policy is intended to prevent degradation of the design integrity and livability of an existing residential or commercial area for the primary purpose of moving greater traffic volumes.

Policies for Minor Streets

Note: As defined in this plan, minor streets are any streets other than limited access expressways and major thoroughfares. As such, there can be considerable variation in the size and character of minor streets, depending upon their intended use.

Policy S-12: The Town shall encourage STREET PATTERNS that respond to site topography, accentuate focal points and interesting vistas, create interesting public spaces and intersections, and that are coordinated with the placement of significant structures or open spaces.

Before the advent of the automobile, streets were oftentimes designed for maximum visual effect, leading up to public parks, or important buildings and churches, etc. In fact, the design, architectural style and placement of prominent buildings were frequently decided in advance so that the layout of the streets could be properly tailored. Consider, for example the placement of important buildings at the Southeastern Theological Seminary relative to the town streets leading up to that campus. Most would argue that the vistas and views created are among the most memorable in the Town of Wake Forest. Consider also, that the new Wake Forest Town Hall is to be located at the foot of Owen Street, offering great potential for an attractive termination feature at the end of that street.

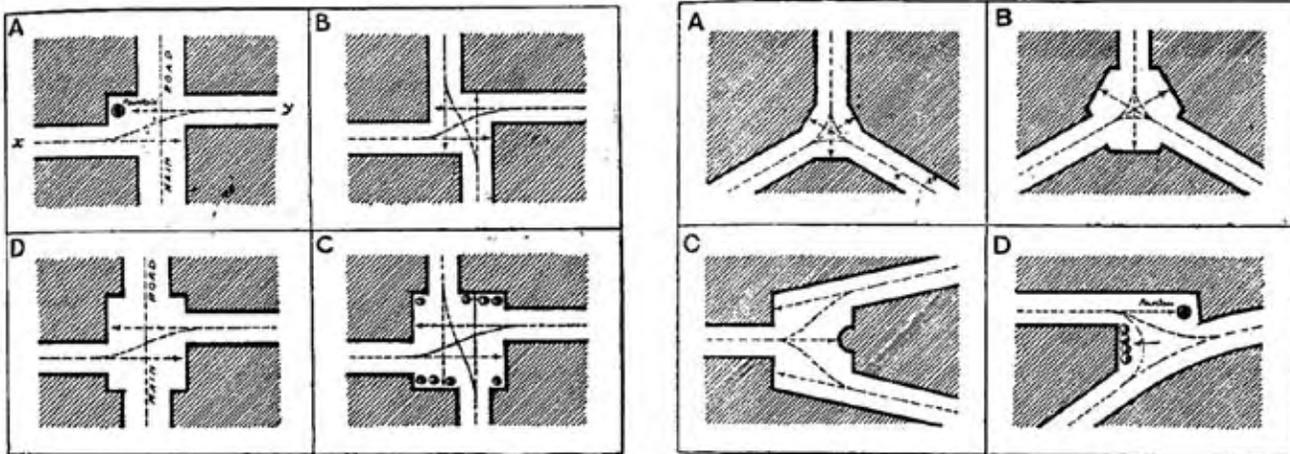
Beyond simple T intersections, minor intersections of local streets that are offset, or come together at angles other than a right angle, can create memorable reference points of special interest in a neighborhood or commercial district. As shown in several of the examples below, such intersections can also provide good opportunities for the closing of vistas. And, contrary to “contemporary” traffic engineering thought, such minor street intersections can cause motorists to be more attentive to safe turning movements, with fewer accidents as a result.*¹

By contrast, many of today’s subdivision layouts are primarily concerned with maximizing the number of lots that can be cut out of a given parcel of land (hence, the expression “cookie cutter subdivision”). Streets may wind aimlessly, not based upon topography or natural assets, but rather as a convenient way to shorten or close street vistas without much thought. It is not unusual for strangers to a modern day subdivision to become quickly disoriented by the lack of order and discernable landmarks in a new subdivision.

Whatever the character of the street, it is of the utmost importance to avoid mere aimless wiggles.

Raymond Unwin, 1909

¹ It is important to note that this policy applies only to minor local streets where traffic volumes are typically light and vehicular speeds are already quite low. Intersections of major streets at other than right angles, are generally to be avoided.



Source for drawings of intersection alternatives: **Town Planning in Practice**, by Sir Raymond Unwin, published in 1909

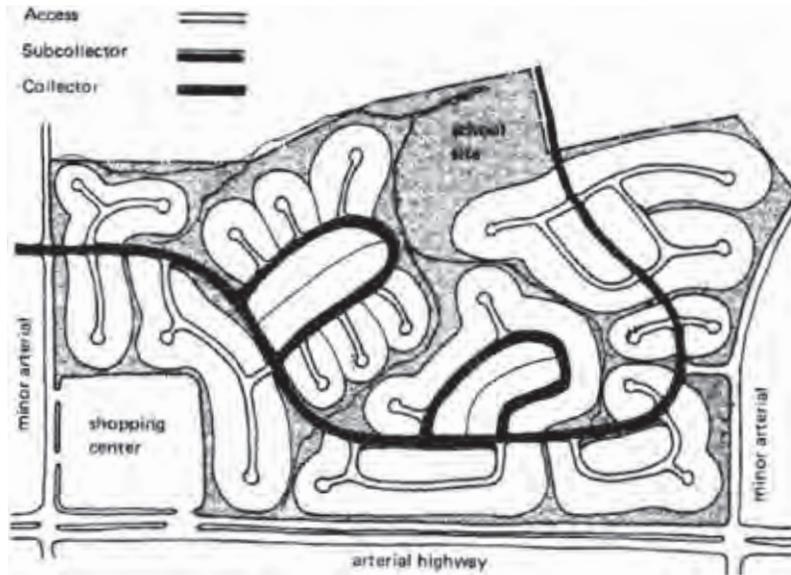
Neighborhood street layout for new developments in Wake Forest should be creative, attractive and functional. Design criteria should include the appropriate use of winding or curved streets only where topography or natural amenities dictate, the creation of enclosed street places (i.e. squares, circles, parks, etc.) where intersections offer opportunity, and the thoughtful use of narrow streets with “T” and “Y” intersections to discourage major cut-throughs and to provide termination points for street vistas. Currently, such intersections are not allowed, for the most part, by the Town’s subdivision regulations; an ordinance amendment would therefore be necessary.

Policy S-13: Consider incorporating CENTRAL MEDIANS into the design of new or improved “neighborhood axial” streets.

Note: In the policy section on Major Streets, central medians were advocated for major thoroughfares carrying cross-town traffic. In this section on Minor Streets, central medians are also advocated for principal streets within major developments.

As noted under policy S-12, one criticism of new suburban subdivisions is that every street seems to be as important as every other. Navigating within the neighborhood can be confusing. There are often no distinguishing characteristics that would provide clues to first time visitors to as to orientation and the whereabouts of “axial streets”.¹ When designing a new development, the addition of an attractively landscaped central median

¹ In this plan, “axial streets” are those that provide a major entry into a large development or lead up to a significant building or neighborhood amenity. Thus, an axial street provides a major axis within the development, and has a major impact on the character and layout of the whole development. In standard subdivision terms, a “collector street” would be most equivalent to an axial street, but usually only in terms of the traffic it carries.



A NEIGHBORHOOD STREET SYSTEM that is “designed” like a plate of spaghetti isolates everyone and is very disorienting. It also costs more to deliver services. (Also, note the location of the shopping center, with no way to get to it except by traveling out onto a major thoroughfare.)

down the middle of an axial street can be helpful in creating a sense of entry, orientation and significance to some streets over others.

In addition to axial streets in new developments, there are a few existing streets in Wake Forest that would be good candidates for the addition of central medians. West Holding Avenue through Tyler Run, for example, has ample pavement width to accommodate an attractive central median. Originally intended to handle heavier traffic loads associated with planned multi-family development, this area was ultimately developed for single family homes. The current expanse of pavement on West Holden only encourages cars to travel faster than is appropriate for the neighborhood.

Likewise, North Allen Road, which was once intended to be a thoroughfare, but never materialized as such, has an excessively wide pavement width that could readily accept a landscaped central median.

In sum, the addition of attractively landscaped central medians to West Holden Avenue, North Allen Road and other excessively wide local streets would perform a functional purpose in slowing traffic, an aesthetic purpose in substituting greenery for asphalt, and a community image purpose in providing design character where it is currently lacking.

Policy S-14: To allow for many alternative routes for walking and biking, as well as a beneficial network of local streets, minor streets in COMPACT NEIGHBORHOODS shall be developed in SHORT BLOCKS OF 300 TO 500 FEET in length.

Isolated street neighborhoods that do have definite boundaries can be found in plenty, to be sure. They are typically associated with long blocks (and hence with infrequent streets), because long blocks tend almost always to be physically self-isolating.

Jane Jacobs, 1961

You can have nice streets, and you can put trees back on them, and you can make beautiful buildings with front porches again, but if the only place it leads is out to the expressway, then we are going to have the same (disconnected, unlivable) environment all over again.

Peter Calthorpe, As quoted in Time Magazine, May 20, 1991

Short street blocks accomplish several worthwhile objectives. First, short blocks prevent individual streets from becoming socially isolated from adjacent street neighborhoods. They encourage neighborhood cohesion beyond what typically occurs on a single long street. This is more important than ever today, where people are sorted into age and income groups by the price of the houses in which they live.

Second, short blocks, when laid out in a fully developed honeycomb of streets, allow for a multitude of alternative routes for people to take in getting from one place to another. In the case of vehicular traffic, this pattern distributes traffic loads over the entire street network of the neighborhood planning area, rather than concentrating traffic on just a few overwhelmed, traffic clogged, collectors. In the case of pedestrian traffic, a full honeycomb of streets provides a multitude of options for walking. Short blocks also provide for frequent breaks for the pedestrian. Studies have shown that short blocks make a walk a more enjoyable experience.

How short is short enough? Block lengths of 300 to 400 feet are ideal; 400 to 500 foot long block is still acceptable. As block lengths approach 600 feet or more, however, adjacent blocks tend to become isolated from each other. Interestingly, blocks in the Wake Forest Historic District average about 400 feet in length, just about ideal. Unfortunately, the same cannot often be said for many typical suburban subdivisions built over the past 50 years.

Policy S-15: STREET WIDTHS should be designed to fit the intended use of the street, corresponding to the traffic load and planned development types. Minor streets shall be no wider than necessary to serve their intended use.

When streets are made unnecessarily wide, motorists have a natural tendency to travel fast, no matter what the posted speed limit. Experience and logic indicates that the best way to regulate traffic speed and movement is to design the streets from the outset according to the traffic load anticipated and the development types planned for.

Narrow streets naturally slow traffic (especially if they are kept short, have frequent, planned interruptions and jogs, and allow on-street parking. They also are more affordable to build and maintain. Their lower initial construction cost to the developer helps keep down the price of new housing. In addition, they minimize heat buildup in the summer months and storm water runoff by reducing exposed impervious surface area. Narrow streets also create a sense of “street space” that is desirable for neighborhood residents and pedestrians in particular. Minor residential streets, after all, should give equal priority to the pedestrian and the automobile. *(Also see Section on Neighborhoods Yet To Be)*

Commendably, the Town of Wake Forest has been moving in the direction of narrower streets for some time now. Current Town standards for street width vary considerably with the intended use of the street—as it should be. While required street width for a residential collector street in Wake Forest is typically 35 feet (measured from back of curb to back of curb) a minor street may be only 25 feet curb to curb. Even at 25 feet, this street width allows for a three lane cross section one row of parked cars, and two travel lanes.

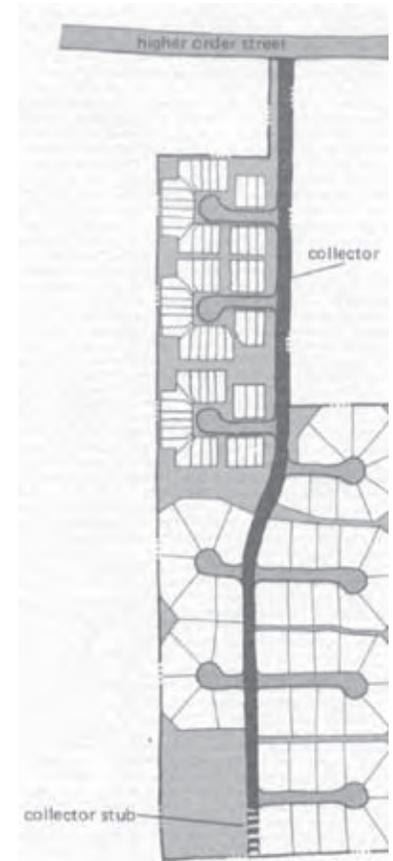
Policy S-16: A FULLY CONNECTED HONEYCOMB OF STREETS should be employed to promote convenient circulation within the neighborhood and provide for multiple, alternative outlets from the area to adjoining neighborhoods and major streets. Careful design should ensure that cut-through traffic routes are not created.

One of the problems of the typical style of street layout in residential subdivisions is the overuse of cul-de-sacs. These streets, basically isolated and minimally connected to other streets in the neighborhood, prevent the pedestrian, bicyclist, and driver from employing the full system of streets in the neighborhood. They can also be also disorienting and make public and private services such as trash collection, school bus service, mail delivery, and police protection more expensive to deliver.

In addition, the conventional street system hierarchy of *local streets*, *collectors*, *thoroughfares*, etc. requires that all traffic funnel onto the next level of street in the hierarchy, culminating at the major thoroughfare. This creates increasing traffic and congestion with each step up in the hierarchy. It also prevents children (and adults) from walking or biking to nearby friends, public parks, services, etc. because they must deal with a street system hierarchy which forces them onto increasingly higher level, traffic-congested streets.

It is important, therefore, that a full “honeycomb of streets” be developed within and between neighborhoods, with many route options available. By requiring that the vast majority of neighborhood street *ends* (i.e. both ends of nearly all streets) terminate at another street, this objective is achieved. At the same time, this recommendation does not prevent the occasional use of a short cul de sac, “eye brow”, or loop road for variety, or where circumstances offer no alternative.¹

THE NEIGHBORHOOD LAYOUT below isolates each cul de sac unto itself and forces all traffic out to the major thoroughfare. The collector stub promises to force even more traffic onto the single collector street.



¹ The Neuse River buffering rules, for example, discourage stream crossings. A development on both sides of a water course may therefore be limited as to the number of street connections available from one side of the stream to the other. It is also costly, both financially and environmentally, to bridge streets across a water course.

A CONNECTED STREET PATTERN provides good circulation.



One way to implement a requirement for connected streets is through the use of a “connectivity index” in the Town’s development regulations, most often the subdivision regulations. The connectivity index, expressed as a fraction, is the ratio of the total number of street ends in the development to the number of street ends terminating at another street. In this sense, it is a straightforward performance standard that can be employed to measure conformance with the requirement.

Finally it should be noted that a “connected” street pattern need not be a “cut through” street pattern. The thoughtful use of T and Y intersections, the placement of parks, the use of stop signs and other traffic control devices, and multiple outlets to major streets can promote good internal circulation and traffic dispersion without encouraging cut through traffic from outside the neighborhood.

Policy S-17: ON-STREET PARKING shall be encouraged in compact neighborhoods. VERTICAL CURBING shall be preferred over rolled or valley curbing to properly contain vehicles within the borders of the paved street area.

On-street parking is a highly efficient form of parking, especially where higher housing densities and a compact neighborhood are desired. On-street parking should be especially encouraged near the center of the neighborhood planning area, closest to the neighborhood focal point and community services. On-street parking, as opposed to off-street lots, brings closely related uses closer together.

It should be noted that a street’s capacity for on-street parking spaces is directly influenced by the number of driveways/curb cuts interrupting the length of useful curb. On-street parking works best in front of residences that are served by alleys to the rear. Alleys eliminate the demand for automobile access to the property from the front, and hence the need for curb cuts. Rear alley access also allows the developer to use true vertical curbing in front, rather than slope faced (or valley) curbing.¹Also, after a street is paved a few times, the utility of a slope faced/valley curb may become “lost”; a vertical curb, on the other hand retains its function even after several repavings.

Finally, on-street parking and true vertical curbing provide an important physical and psychological buffer between pedestrians on the sidewalk and traffic passing on the street. A sidewalk immediately adjoining a traffic lane is a poor design for a street and makes pedestrians very

¹ Slope faced curbing came about in large measure because it allowed the developer to place a front yard driveway anywhere along the length of the lot frontage without having to remove a section of curbing.

uncomfortable while walking only a foot or two from fast moving cars and trucks. Furthermore, the fear that on-street parking will create situations where small children dart from behind a parked car into passing traffic is not borne out by actual experience, but continues to be a commonly held perception.

Policy S-19: To shorten the street crossing distance for pedestrians at intersections, the TURNING RADIUS OF CORNERS at intersections involving minor streets shall be as small as possible while allowing for reasonable truck and emergency vehicle maneuvering.

Pedestrian safety in crossing a street is determined in part by how long it takes a pedestrian to cross from one side of the street to the other. The time required to cross the street is determined mostly by the distance from curb to curb. In the old days, this meant that a pedestrian would have to travel, for example, 30 feet from curb to curb if the street were 30 feet wide. Today, however, due to increased turning radii at intersections, the actual distance required to cross a 30-foot wide street may be closer to 40 feet. This is because the large turning radius associated with many street corners puts more flare in the turn, and pulls the sidewalk ends farther apart. (See diagram)

Larger turning radii have been justified to allow cars to go faster around corners. While such an objective may have merit at the intersection of two major streets, it is certainly not justified at the intersection of two minor streets. Larger turning radii give undue preference to the automobile and actually make streets less safe for pedestrians. It is unfortunately symptomatic of today's culture to cater to the needs of the automobile while ignoring the pedestrian.

Another argument for bigger turning radii is that today's large trash trucks and fire trucks require bigger turning radii to negotiate around street corners. While there is some truth to this, actual demonstrations in the field have proven that today's large trucks can negotiate smaller turning radii than generally thought. While street corners may not need to be as "squared off" as 100 years ago, they also do not need to cater totally to the fast moving automobile.



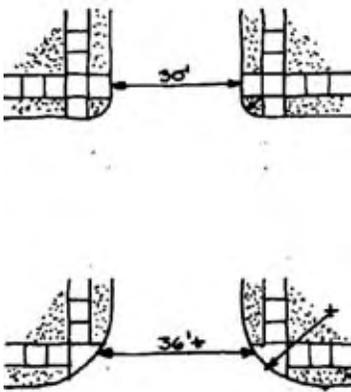
This illustration shows pedestrians in a hostile, **UNCOMFORTABLE ENVIRONMENT**. They are fully exposed to moving traffic without benefit of any kind of buffer. These pedestrians also have no shade.



Parked Car

This illustration shows pedestrians in a **COMFORTABLE ENVIRONMENT**. They are buffered from moving traffic by a row of parked cars and a planting strip. Their walk is also shaded.

Policy S-20: The Town should employ TRAFFIC CALMING methods on neighborhood streets as necessary to enhance livability and restore the balance between pedestrian, bicycle and automobile use. Implementation of such methods should be conducted with full participation and input from neighborhood residents.



A BIGGER TURNING RADIUS

at intersections makes the crossing distance longer for pedestrians and encourages cars to speed around corners.

Traffic calming may be defined as:

*“a form of traffic planning that seeks to equalize the use of streets between automobiles, pedestrians, bicyclists, and playing children. This is accomplished through the use of devices and techniques that reduce traffic volume and speed in neighborhoods while maintaining maximum mobility and access. Traffic calming also attempts to make drivers aware of the fact that they are sharing the space of the street with other users.”*1*

There are two categories of traffic calming techniques: active and passive. Active (physical) techniques include: speed bumps, speed tables, rumble strips, median barriers, cul-de-sacs, semi diverters, traffic circles, chokers, interrupted site lines, neck downs, chicanes, changes in direction, and protected parking. Active techniques change driver behavior and are therefore largely self-enforcing. They also create the visual impression that a street is not meant for through traffic and that other users of the roadway, such as pedestrians, cyclists, and children playing have an equal right to the use of the street.

Passive techniques are primarily traffic signs (e.g. Stop, Yield, speed limits, turn prohibitions, one-way, “Slow, School Zone”, “Do Not Enter”, “Not A Through Street”, “Dead End”, “Local Access Only”, truck restrictions, etc.) Other passive control devices include traffic signals and pavement markings such as crosswalks and lateral bars. While using regulatory signs to inform drivers, passive control devices, do not physically prevent an action. Passive devices are most effective in areas where compliance can be expected to be high and enforcement is possible. *(For a full description and discussion of the advantages and disadvantages of various active and passive traffic control devices, the reader is directed to the publication cited in the footnote below.)*

Regardless of the method or control device employed, it is critically important that neighborhood residents be fully involved in the planning and implementation of any traffic calming measures. Community involvement requires two-way communication between traffic planning professionals

1 Hoyle, Cynthia L. *Traffic Calming*, Planning Advisory Service Report Number 456, American Planning Association, July 1995

and area residents. Resident input allows the professionals to see the problems from the residents' point of view and may reveal insights that the professional might not be aware of; the interaction between the planning professional and area residents can help those involved understand, the legal, physical and financial constraints of the various options available.

Summary of Policies for Minor Streets

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Policy S-17: ON-STREET PARKING shall be encouraged in compact neighborhoods. VERTICAL CURBING shall be preferred over rolled or valley curbing to properly contain vehicles within the borders of the paved street area.

Policy S-18: CONSERVATION SUBDIVISIONS (I.E. LOW IMPACT DEVELOPMENT), those designed to minimize environmental disturbance and protect adjoining natural resources, may employ grassed swales to capture stormwater runoff, filter out pollutants and recharge groundwater resources.

Policy S-19: To shorten the street crossing distance for pedestrians at intersections, the TURNING RADIUS OF CORNERS at intersections involving minor streets shall be as small as possible while allowing for reasonable truck and emergency vehicle maneuvering.

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Sidewalks

Summary of Issues

For most of American history, sidewalks were considered an essential part of every community. The unpaved, muddy, horse and wagon middle part of a street was no place for people on foot. Clean, dry walks along the side of the street provided a suitable, safe place for the pedestrian. Residential areas huddled close to places of work and shopping because, for most people, walking was the predominant form of getting around. Thus, prior to the advent of the automobile, towns and cities were generally compact in form and catered to the needs of the pedestrian.

In this context, the history of sidewalks in Wake Forest is worth examining. From its earliest days, Wake Forest had no sidewalks outside the central business district. Residential streets were unpaved, traffic was light, and sidewalks were non-existent. Finally, during the first part of the twentieth century, dirt streets were paved and granite curbs installed in the oldest parts of town. It was also at this time that some existing residential areas received sidewalks. Most newly developed areas continued to be built without sidewalks, however.

It wasn't until many decades later, after Town zoning and subdivision regulations had been adopted, that sidewalk standards were even considered. Then, during the 1980s, the Town's subdivision regulations were amended to require sidewalks along some residential streets. Administration of the rules varied, however, with no consistent policy enforcement on sidewalks. Even the state sponsored thoroughfare plans of the time placed little emphasis on pedestrian needs, focusing instead on solving the growing problem of vehicular traffic congestion. Finally, in the early 1990s, Wake Forest adopted a succinct policy on sidewalks. It stated that:

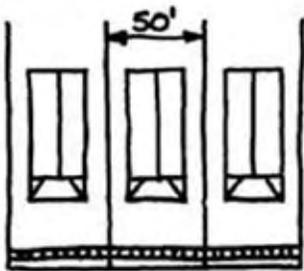
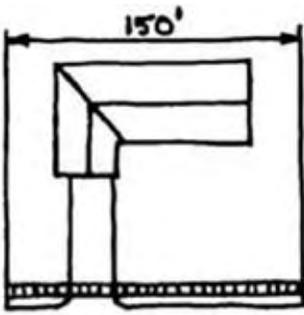
“Sidewalks shall be included as a part of the construction of all streets included in the thoroughfare plan, collector street plan and other access roads. Sidewalks should link residential areas with employment, commercial and public areas and should interconnect the town greenway plan.” (Wake Forest Code of Ordinances, Section 28-39)

Significantly, this new policy was written into the Town Code, thereby superseding the regulatory authority of Town's subdivision regulations and making the rules applicable anywhere in town, not just within new residential subdivisions.

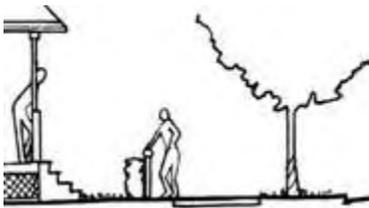
Evidence of the evolution of sidewalk standards in Wake Forest has created some interesting situations over the years. The first part of the Cimarron



Wake Forest town officials have recognized the human health and quality of life advantages of a more walkable community.



THE COST OF PROVIDING SIDEWALKS to homes in “new urban” neighborhoods can be substantially less than the cost of providing sidewalks in large lot subdivisions.



HOMES PULLED UP TO THE STREET with functional front porches add interest and promote neighborhood interaction with pedestrians on the sidewalk.

neighborhood, for example, was built in the 1980’s without sidewalks. A second phase of the development, completed during the 1990’s, however, was built with sidewalks, as required under the new standard in the Town Code. Currently, about one-third of the neighborhood does not have sidewalks while two-thirds does.

Even today, some characteristics of conventional, suburban development work against sidewalks. First, as residential areas have become more isolated from shopping areas, parks, schools, and work places; residents have grown to rely upon the automobile to get just about anywhere. In practical terms, while it might make sense to walk three or four blocks (about a quarter of a mile) to a nearby school, corner store or public park, most people in today’s culture would not think of walking a mile or more to get to the same destinations.

Second, large lot zoning usually makes sidewalk installation more costly per residential unit. Consider, for example, the cost of providing sidewalks for three 50-foot wide lots versus one 150-foot wide lot. (In the example given, sidewalk construction costs three times as much per housing unit for the wider lot.)

Third, new suburban-style residential developments often lack interest to encourage pedestrian activity. Homes are set back from the street, and there are often no real front porches to encourage neighborhood interaction. Street lights are typically oriented mostly toward the street pavement and do little for the safety and security of the pedestrian.

Fortunately, after nearly a century of varying policies concerning sidewalks, Wake Forest Town officials have recognized the human health and quality of life advantages of a more walkable community. While retrofitting all previously developed areas of the town with sidewalks is unlikely, the Town’s current policy on sidewalks will see to it that all future parts of the community will have safe facilities for pedestrians.

Of note, the *Town of Wake Forest Pedestrian Plan* was completed in November 2006, providing a detailed inventory and action strategy for improving the pedestrian environment in the community. This section of the Community Plan will seek to distill the recommendations of the Pedestrian Plan down to a reasonable number of salient policy statements.

Policies for Sidewalks

Policy SW-1: WHERE NO SIDEWALKS ARE PRESENT in existing developed areas, sidewalks should be provided on a priority basis to connect residential areas to walkable pedestrian destinations, focusing especially on schools, parks and greenways.

As noted earlier, many previously developed parts of Wake Forest have no sidewalks. Obviously, not all areas of the town have equal need for sidewalks, nor does the Town have unlimited financial resources to pay for sidewalks everywhere at once. In some of these areas, however, residential and non-residential uses are close enough to warrant the provision of sidewalks. The Town will therefore want to follow the specific project priorities for sidewalk construction as recommended in the 2006 *Pedestrian Plan*.

At the same time, the Town should stay alert for sidewalk needs that may arise and that were not anticipated in the *Pedestrian Plan*. While pedestrian access to schools, parks and greenways should always be a priority, other needs should not be overlooked. Following the development of a new neighborhood, for example, a freshly worn path may materialize in the grass along the side of a nearby cross-town street. Observations of heavy usage would certainly warrant consideration for a sidewalk in that location. In other situations, the installation of a new sidewalk section along one section of a road may point up a critical missing link not previously evident along an adjoining section of the same road.





Policy SW-2: FOR NEW CONSTRUCTION, SIDEWALKS shall be required on both sides of the street (1) along thoroughfares and collectors, (2) in multi-family developments, (3) in “front porch” developments and (4) along local streets within walking distance of a major pedestrian trip attractor, such as a school, library, shopping center or similar facility. Sidewalks shall be required on one side of all other streets, except cul de sacs less than 400 feet long.

Under the best of circumstances, it can be a difficult proposition to retrofit existing streets with new sidewalks. There may be right of way or easement issues. Homeowners may have placed prized landscaping or other obstructions in the proposed path of the sidewalk. Utility poles or street lights may have to be worked around. Existing roadside ditches or other drainage facilities may have to be rerouted. Driveways will need to be crossed. Unpopular special assessments may be required to help defray the cost.

Not so with sidewalks installed as a part of new residential or commercial development. Most of the problems noted above can be avoided by proper planning and construction sequencing. The cost of the sidewalk can be included in the purchase price of the home or business and amortized over a period of many years. Landscaping, drainage, and street light placement can be carefully coordinated. It is therefore commendable that the Town of Wake Forest has seen fit to require sidewalks as an essential component of a complete community— no less important than paved streets and water and sewer lines. The above policy, taken largely from the *Wake Forest Transportation Plan* makes the Town’s policy on sidewalks, as presented in the Town code, even clearer.

One minor addition, recommended in this plan, is that sidewalks also be required on both sides of the street in “front porch” developments. These are developments where homes have been pulled up close to the street and functional front porches have been provided.

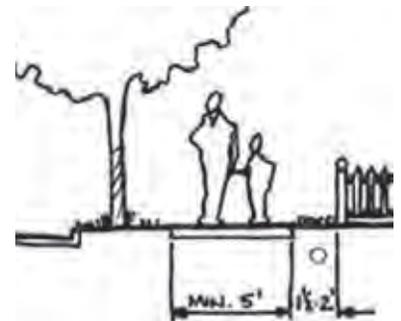
Finally, the Town has not typically required sidewalks on either side of a cul de sac less than 400 feet in length. The logic here is that short cul de sacs do not generate enough vehicular traffic to cause a safety problem with pedestrians using the street.

Policy SW-3: SIDEWALK WIDTH should correspond with anticipated pedestrian traffic volumes, adjoining land uses, and sidewalk activities. Except where constrained by unusual physical limitations, a minimum five foot width shall be required. The **VERGE WIDTH** (i.e. space between the sidewalk and the edge of the street) should correspond with the posted speed of the adjoining roadway, but should not be less than 6 feet.

Just as streets should be built according to their intended vehicular traffic volume and adjoining land uses, sidewalks should be built according to their intended pedestrian traffic volume and adjoining uses. While most residential areas can be adequately served by 5-foot wide walks, shopping districts, school areas, and public facilities may call for a minimum sidewalk width of 8 feet, and occasionally up to 20 feet or more. This is especially true where street vendors, sidewalk cafes and street furniture take up space on the public walkway.

According to urban design experts, sidewalks less than 5 feet in width do not allow two people to walk together side by side comfortably. In addition, if the sidewalk runs along an adjoining wall, hedge, fence or other vertical element, an additional 1½ to 2 feet of width is necessary to accommodate the human tendency to maintain a clear distance from such obstructions. Depending on the circumstances, it may be best to simply leave this 1½ to 2 foot buffer area unpaved to allow for access to underground utilities just outside the sidewalk.

The same principal applies on the street side of the sidewalk, where a planted (preferably) buffer area should be left adjacent to the back of the curb. Ideally, this planted plaza strip or verge between the sidewalk and the curb, should be no less than 6 feet to provide adequate planting space for canopy sized street trees. In addition, the required width of the verge should increase as the posted speed of the adjoining roadway increases.¹ Unfortunately, right of way limitations and/or pre-existing utilities sometimes provide for cramped conditions, requiring the sidewalk to be placed right against the back of the curb. This puts the pedestrian on the sidewalk in an uncomfortable and insecure position relative to fast moving traffic on the adjoining pavement. As noted elsewhere in this plan, street trees and, in some instances, on-street parking provide for the most effective protective buffer for pedestrians.



¹ The Wake Forest Transportation Plan calls for a minimum 5 foot wide verge between the street side edge of the sidewalk and the back of the curb.



Policy SW-4: CURB RAMP INSTALLATION should continue to be implemented to retrofit existing sidewalks at appropriate locations and to make sure that any existing or new sidewalk improvements meet design standards.

The Americans with Disabilities Act of 1991 requires that state and local governments receiving federal funds do a self-evaluation of their facilities and identify barriers, which prevent individuals with disabilities from accessing public areas. Sidewalks, of course, are fundamental to gaining access to many public spaces and buildings. Title II of the ADA Act mandates that public agencies such as the Town of Wake Forest evaluate their streets and sidewalks for compliance with ADA standards. Part of such an evaluation is the presence or absence of curb ramps, especially for sidewalks in locations where there is a higher than average usage by disabled persons.

It is important to note that curb ramps serve more people than just the disabled, and are a major positive step towards creating accessible communities. Parents pushing strollers, postal carriers, small children pulling wagons, seniors, and many other citizens benefit from curb ramps. Typically, communities have found that areas where pedestrian traffic is high overall are also the areas most heavily used by the disabled. Examples include:

- Sidewalks in downtown areas—often have a concentration of government buildings and pedestrian activity.
- Sidewalks in older parts of the community—older areas typically have higher pedestrian activity than newer areas.
- Sidewalks along major roadways, especially along major bus routes, often have more pedestrians.

Currently, the Town’s policy is to retrofit existing sidewalks with handicapped ramps whenever an existing sidewalk must be repaired or when a street is resurfaced. Of course, any newly constructed sidewalks are required to have properly designed curb ramps.

Policy SW-5: Plainly marked, well lit CROSSWALKS, UNDERPASSES AND PEDESTRIAN TUNNELS should be a priority at locations where significant pedestrian activity is observed or expected, and where network connectivity is especially warranted. The level of crosswalk investment should be commensurate with the level of pedestrian activity and the nature of the safety concerns being addressed.

As streets and intersections have gotten wider, blocks longer, and traffic speeds higher, pedestrian movement across many streets has become challenging at best, and unsafe at worst. While the long-standing rule that “the pedestrian has the right of way” is technically the law of the land, few pedestrians place much confidence in it, and for good reason. In today’s car-oriented culture, pedestrians are too often seen as out-of-place intruders in the realm of the automobile.

This policy seeks to restore some measure of safety to the pedestrian, consistent with a more walkable community. This may involve little more than painting bold crosswalk stripes on the pavement, or it may involve more elaborate means, such as overhead signage or an on-demand (push button) traffic signal. Changes in pavement material may be required, including rumble strips in advance of the crossing, or other change in pavement material at the actual place of crossing. Paving materials may include, for example, stamped concrete or asphalt, brick pavers, colored concrete or other materials.

Changes in pavement elevation are another option, including speed bumps, speed humps and speed tables.¹ Changes in intersection design may also be helpful, including street narrowing bulb-outs at the point of crossing, or a shortening of the turning radius at an intersection, effectively shortening the crossing distance, while also slowing cars that are turning. Finally, it should be noted that crosswalks on very wide streets (i.e. 50 feet or greater curb to curb) work best when installed in tandem with a central median, which provides a safe refuge half way across the street.

Summary of Policies for Sidewalks

Policy SW-1: WHERE NO SIDEWALKS ARE PRESENT in existing developed areas, sidewalks should be provided on a priority basis to connect residential areas to walkable pedestrian destinations, focusing especially on schools, parks and greenways.

Policy SW-2: FOR NEW CONSTRUCTION, SIDEWALKS shall be required on both sides of the street (1) along thoroughfares and collectors, (2) in multi-family developments, (3) in “front porch” developments and (4) along local streets within walking distance of a major pedestrian trip attractor, such as a school, library, shopping center or similar facility. Sidewalks shall be required on one side of all other streets, except cul de sacs less than 400 feet long.

¹ At the present time, the Town of Wake Forest policy is to use speed tables rather than speed bumps or speed humps to slow traffic.

Policy SW-3: SIDEWALK WIDTH should correspond with anticipated pedestrian traffic volumes, adjoining land uses, and sidewalk activities. Except where constrained by unusual physical limitations, a minimum five foot width shall be required. The VERGE WIDTH (i.e. space between the sidewalk and the edge of the street) should correspond with the posted speed of the adjoining roadway, but should not be less than 6 feet.

Policy SW-4: CURB RAMP INSTALLATION should continue to be implemented to retrofit existing sidewalks at appropriate locations and to make sure that any existing or new sidewalk improvements meet design standards.

Policy SW-5: Plainly marked, well lit CROSSWALKS, UNDERPASSES AND PEDESTRIAN TUNNELS should be a priority at locations where significant pedestrian activity is observed or expected, and where network connectivity is especially warranted. The level of crosswalk investment should be commensurate with the level of pedestrian activity and the nature of the safety concerns being addressed.

Bikeways

Summary of Issues



Around the turn of the last century, bicycles were a very popular form of transportation. Despite the predominance of dirt roads in many communities, bicycles were used for commuting to work, running errands, and for pleasure (a la “A Bicycle Built for Two”—written in 1892). It is no surprise that the success of a bicycle shop in Dayton, Ohio allowed its two owners to build and fly the world’s first working airplane at Kitty Hawk, North Carolina. Bicycles were then a big business and an important transportation option for many people.

Today, there are two major problems confronting the widespread use of bicycles in Wake Forest. The first is the perception of bicycling as primarily a recreational pursuit. The second, more significant problem is a street system that forces all commuters, including bicyclists, onto a limited number of high traffic volume thoroughfares that are not designed to accommodate bicycles. The first problem is actually a function of the second, in that until Wake Forest’s street system is properly configured to accommodate bicycles, thereby increasing the number of bicyclists on the street, bicycling will continue to be viewed primarily as a recreational outlet.

The Town of Wake Forest is not waiting for perceptions about bicycles and the facilities they require to change on their own. Beginning in 2006 and continuing to the present, the Town has been in the process of preparing a new *Comprehensive Bicycle Plan*.¹ The draft bicycle plan consists of two parts as follows:

Bicycle Plan Working Paper No. 1 provides an assessment of the existing bicycle facilities and related facilities, plans, and policies as a foundation for recommendations.

Bicycle Plan Working Paper No. 2 provides recommendations for future bicycle facility projects and related actions, and includes facility design guidelines and best practices to help with plan implementation. Also includes recommendations for education, encouragement, and enforcement programs to foster a more bicycle-friendly climate in the Town.

Section 5 of Working Paper No. 2 sets forth a number of policy recommendations for improving the bicycling environment of Wake Forest. This chapter of the *Community Plan* takes many of the recommendations of the *Bicycle Plan* and translates them as necessary into succinct policy statements. This *Community Plan* also offers some additions and modifications to the policies and supporting narrative of the *Bicycle Plan*. These differences between the two plans will need to be reconciled as both plans move forward. Policies of the *Bicycle Plan* that relate specifically to greenways are covered in the next chapter, entitled *Greenway Trails*.

Policies for Bikeways

Policy B-1: The BICYCLE FACILITY SELECTION GUIDE, as used by the Federal Highway Administration, shall be employed for determining the most suitable type of bicycle facility for any new or upgraded roads in Wake Forest.

Currently, Wake Forest has bicycle facilities selected for only certain roads in the town. Yet all roads in Wake Forest should accommodate cyclists and pedestrians, except where specifically prohibited. Illustrated on the following page are the four basic types of bikeways, among which planners should choose for application to any street in Wake Forest.

There is currently no national standard for matching on-road bicycle facilities with the type of road being evaluated. Usually, the type of bicycle

¹ At the time of this writing a draft of the *Town of Wake Forest Comprehensive Bicycle Plan* was under review by officials with North Carolina Department of Transportation.

facility recommended depends upon the traffic volume and speed of the adjoining roadway. The table on the next page is from the *Bicycle Facility Selection Guide*¹ used by the Federal Highway Administration for bicycle facility planning. This chart is recommended for use in Wake Forest by the Town's Bicycle Plan. By using the guidelines set forth in the chart, and taking into consideration other physical constraints on the ground, the Town should be able to generally determine the correct type of bicycle facility for any road in town.

¹ Selecting Roadway Design Treatments to Accommodate Bicycles (Publication No. FHWA-RD-92-073), Federal Highway Administration, January 1994.

Four Basic Types of Bikeways



Shared roadway with regular lane width. Bicyclists share the existing road with other vehicle traffic (the majority of road mileage in the United States falls into this category).



Wide curb lane. Bicyclists share a wide outside (curb) lane with other vehicle traffic.



Bike lane. Bicyclists have dedicated road space that is adjacent to but separated from other vehicle traffic lanes.



Separated path or lane. Bicyclists have dedicated paths and trails (or sometimes very wide lanes) that offer significant separation from other vehicle traffic.

United States (FHWA) Matrix for Bicycle Facility Treatments

FACILITY/TREATMENT	POSTED SPEED					
	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph
Narrow Lane	—	—	—	—	—	—
Wide Lane	<10,000 ADT	<10,000 ADT	—	—	—	—
Bike Lane or Shoulder	>10,000 ADT	>10,000 ADT	All ADT	All ADT	All ADT	All ADT
Separate Lane or Path	—	—	—	—	—	—

Policy B-2: The Town should facilitate bicycle and pedestrian way CONNECTIONS BETWEEN NEIGHBORHOODS, either by street or connecting path, to enable the effective use of local, minor streets for pedestrian and bicycle travel.

The least costly and perhaps safest way to develop bikeways is to employ a network of appropriate, interconnected local streets. Unfortunately, the use of interconnected streets in Wake Forest has been hampered by decades of post-war suburban-style subdivisions that do not connect with one another, but rather empty out onto the closest thoroughfare.

One of the simplest and most effective actions that the Town can take in providing for bikeways is to require that new developments connect their streets with adjacent developments. This would allow bicyclists to travel along the interior streets of neighborhood planning areas, without having to pedal along heavily trafficked thoroughfares. This objective can be accomplished simply by intelligent planning in the layout of new neighborhoods.

Regarding an existing neighborhood that lacks a street connection to an adjoining neighborhood, a good option is to pursue the addition of at least a pedestrian and bicycle path, linking one neighborhood to another. Obviously, any retrofitting of pedestrian and bicycle connections between existing neighborhoods would require a full consultation with neighborhood residents. Hopefully, with attitudes changing about health and obesity, access to schools, parks, and other destinations, and enhanced real estate values, some existing neighborhoods will see the advantages of having access to a community-wide bikeway system.



Courtesy of www.pedbikeimages.org/Dan Burden photographer

Policy B-3: STRIPED BICYCLE LANES and appropriate signage should be installed ALONG EXISTING STREETS where called for in the Bicycle Plan.

Currently, Wake Forest relies on wide outside lanes/shared lanes to accommodate bicycles. Wide outside lanes and shared lanes should be replaced by striped bicycle lanes wherever possible. Bicycle signs should be posted along all bicycle facilities indicated in the *Bicycle Plan*. The following projects are identified in the *Bicycle Plan* as being priority streets for striped bike lanes and/or a multi-use path.

- Main Street: Capital Boulevard to Downtown
- Rogers Road: Main Street to Forestville Road
- Wait/Roosevelt Avenue: Main Street to NC 98
- White Street: Elm Avenue to Town Limits
- Harris Road: Capital Boulevard to Oak Street
- Ligon Mill Extension: Main Street to Durham Road
- Ligon Mill: Louisburg Road to Main Street

Policy B-4: STRIPED BICYCLE LANES and appropriate signage should be required ALONG NEW COLLECTOR LEVEL STREETS. Bicycle lanes and signage may also be required along other streets, to be determined on a case by case basis.

The draft *Bicycle Plan* notes that bicycle facilities are not required under the provisions of Wake Forest’s subdivision ordinance. The bike plan therefore recommends that the Town’s subdivision ordinance be revised to require bicycle lanes on major subdivision roads and, further, that signage be required to indicate the presence of cyclists to motorists. The plan notes that this will not only make a subdivision more bicycle friendly, but also potentially reduce traffic impacts of the subdivision by encouraging more travel by bicycle rather than automobile.

While this is a step in the right direction, it would be even more helpful to put the new requirement in the Town Code (as well as the subdivision ordinance) so that the application of the standard is not limited to residential streets only. Finally, rather than specifying that the policy apply to “major new subdivision streets” it is suggested that the policy be reworded to specify “collector level streets”. Provision is also made in the policy to allow for some latitude for requiring striped bicycle lanes along appropriate streets that many not be a collector.

Policy B-5: Depending on the nature of the intersection and its use by bicyclists, some street intersections should have BICYCLE- RESPONSIVE SIGNALS installed at the time of construction or resignalization. Criteria for such installation should be set forth in the Town's development requirements and public works engineering standards.

None of the vehicle-triggered signals in the Town of Wake Forest are currently responsive to cyclists. This results in situations where cyclists must either (1) remain stopped at red lights until a vehicle large enough to trigger the signal arrives or (2) risk crossing the intersection without aid of a green light.¹ Obviously, either option is a hindrance to bicycle travel. Wake Forest should require all new signals, and any signal upgrades, to be set so that they may be triggered by cyclists.

Policy B-6: All new public and private developments should have BIKE PARKING AND BICYCLE ACCESS.

With the advent of the private automobile as the mainstay of transportation today, the Town's ordinances have gone to considerable lengths to accommodate the parking needs of the car. Elaborate standards are set forth in the Town zoning ordinance as to the number, size, location, and design of parking spaces and parking lots for specific residential and commercial uses. In recent years, the Town has also introduced requirements for new private developments to have bicycle parking. This is commendable. A similar requirement should apply to new public facilities. Both public and private facilities should also be required to provide bicycle access through bicycle lanes and connections to greenways.

Policy B-7: All future ROAD CONSTRUCTION AND IMPROVEMENTS should be examined for bikeway feasibility and conformity with the Town of Wake Forest Bicycle Plan. As appropriate, bikeways should be installed during road construction or improvements.

This policy is intended to explicitly recognize bikeways in the planning and design process for all new road construction or improvements to existing roads. This includes road widenings. Whether the road is to be built as a state highway or a local town street, bikeways need to be a priority. The policy also confirms to the North Carolina Department of Transportation that the Town of Wake Forest places a high value on opportunities for



Courtesy of www.pedbikeimages.org/Michael King photographer

¹ North Carolina motor vehicle law was recently changed to allow motorcycles and bicycles to proceed through an intersection against a red traffic light after waiting a minimum of three minutes for the light to change. The intersection must be controlled by a vehicle triggered sensor system.



Courtesy of www.pedbikeimages.org/Dan Burden photographer

bikeway development, and expects NCDOT to do the same when planning for projects within the town.

Policy B-8: All FUTURE DEVELOPMENTS AND SITE PLANS shall be examined for bicycle compatibility and conformity with the town Bicycle Plan. As appropriate, bikeway routes shall be identified and planned for in the construction of such developments.

This policy calls for the Town's review process for subdivisions and development projects to recognize bicycle compatibility and conformity with the town-wide *Bicycle Plan* as a specific review criterion. In Wake Forest's relatively mild climate and modest terrain, there is little reason why bicycles should not offer a legitimate transportation alternative within the community. Bikeways are small enough that they can pass through a neighborhood or development without being viewed as an outside traffic intrusion. In some situations, a bikeway may conveniently intersect with a focal point in the heart of a neighborhood or other development. With explicit advanced planning and forethought given to bikeway possibilities, such bikeways are more likely to happen. Reviews of subdivisions and site plans may offer the best opportunity to implement a bikeway plan in incremental fashion, as the Town develops.

Policy B-9: Bicycle facilities and their impacts should be included in TRAFFIC IMPACT ANALYSES for new private developments.

This policy is an adjunct to the policy immediately preceding. Currently, the Town's Development Manual provides extensive guidelines for conducting Traffic Impact Analysis including methods for assessing traffic generation, trip distribution, existing conditions, planned improvements, and even pedestrian facilities, but not bicycle facilities. This policy requires that bicycle facilities be mapped and included with each Traffic Impact Analysis, to include bicycle lanes, paved multi-use paths, and greenways. In addition, bicycle facilities should be considered as a mitigation approach for potential vehicle traffic generated by developments.

Policy B-10: PEDESTRIAN AND BICYCLE FRIENDLY SCHOOL ZONES should be established and implemented around all schools.

Currently, there are elementary, middle, and high schools in Wake Forest which have little or no bicycle and pedestrian access. Working with each

school, the Town should establish pedestrian and bicycle friendly school zones. Implementation of each school zone may include reduced speeds along nearby streets, warning signs for bicyclists and pedestrians, sidewalk and bicycle lanes, access to greenways, pedestrian and bicycle responsive signals, and bicycle parking. New schools should also be required to have safe pedestrian and bicycle access planned into the design from the outset. This policy, in coordination with an organized Safe Routes to School effort, should make schools in Wake Forest safer for students, parents, teachers, and staff.

Policy B-11: Bicycle-related improvements should be an integral component of the Town's ANNUAL BUDGET for public infrastructure improvements.

Currently, bicycle-related improvements are made as ancillary construction to a larger project, such as a new development or a road widening. There are too many bicycle improvements needed now for the Town to wait for these sorts of mechanisms to trigger the development of bicycle facilities. To address this, the Town should create an annual budget item to address bicycle-related improvements and to speed the process of making the town more bicycle-friendly.

Summary of Policies for Bikeways

Policy B-1: The BICYCLE FACILITY SELECTION GUIDE, as used by the Federal Highway Administration, shall be employed for determining the most suitable type of bicycle facility for any new or upgraded roads in Wake Forest.

Policy B-2: The Town should facilitate bicycle and pedestrian way CONNECTIONS BETWEEN NEIGHBORHOODS, either by street or connecting path, to enable the effective use of local, minor streets for pedestrian and bicycle travel.

Policy B-3: STRIPED BICYCLE LANES and appropriate signage should be installed ALONG EXISTING STREETS where called for in the Bicycle Plan.

Policy B-4: STRIPED BICYCLE LANES and appropriate signage should be required ALONG NEW COLLECTOR LEVEL STREETS. Bicycle lanes and signage may also be required along other streets, to be determined on a case by case basis.

Policy B-5: Depending on the nature of the intersection and its use by bicyclists, some street intersections should have BICYCLE- RESPONSIVE SIGNALS installed at the time of construction or resignalization. Criteria for such installation should be set forth in the Town's development requirements and public works engineering standards.

Policy B-6: All new public and private developments should have BIKE PARKING AND BICYCLE ACCESS.

Policy B-7: All future ROAD CONSTRUCTION AND IMPROVEMENTS should be examined for bikeway feasibility and conformity with the Town of Wake Forest Bicycle Plan. As appropriate, bikeways should be installed during road construction or improvements.

Policy B-8: All FUTURE DEVELOPMENTS AND SITE PLANS shall be examined for bicycle compatibility and conformity with the town Bicycle Plan. As appropriate, bikeway routes shall be identified and planned for in the construction of such developments.

Policy B-9: Bicycle facilities and their impacts should be included in TRAFFIC IMPACT ANALYSES for new private developments.

Policy B-10: PEDESTRIAN AND BICYCLE FRIENDLY SCHOOL ZONES should be established and implemented around all schools.

Policy B-11: Bicycle-related improvements should be an integral component of the Town's ANNUAL BUDGET for public infrastructure investment.

Greenway Trails



OLDE MILL STREAM section of the Richland Creek Greenway

*Note: The following policies address the development of greenway trails, in their role as a **transportation option** within the Town of Wake Forest. The broader issue of greenways as part of the town's **open space system** will be addressed elsewhere in this plan under the policy chapter on Parks, Open Space and Greenways.*

Summary of Issues

Greenways use largely natural corridors such as river and creek floodplains to create linear park systems. These natural corridors are supplemented as necessary by man-made corridors, such as utility and transportation rights of way, to assemble a complete, interconnected system of linear park spaces and trails within a community. The Town of Wake Forest is blessed with an urban pattern of development, stream configuration, and utility corridors that offer good opportunities for greenway and related trail development.

Greenway trails appeal to all age groups. The elderly, a population group that will soon swell with the ranks of the baby boom generation, often find walking a greenway trail healthful and enjoyable. Depending on the location of the trail, children find that greenways afford safe, off-road paths between home and school, home and the park, etc. Further, in Wake Forest's reasonably modest terrain, greenways offer opportunities for joint development of bikeway trails from residences to shopping or even to places of employment. In many instances, this requires the construction of "neighborhood connectors" or "spurs" leading from a neighborhood area to a greenway trunk line.

Several of Wake Forest's recently prepared long range plans, including the *Open Space and Greenway Plan* (2002), the *Transportation Plan* (2003) the *Park and Recreation Master Plan* (2005) the *Pedestrian Plan* (2006), and the *Bikeway Plan* (2008), urge the continued development of a greenway system as a defining feature of Wake Forest's parks, recreation, and open space system and a useful adjunct to the town's transportation network.

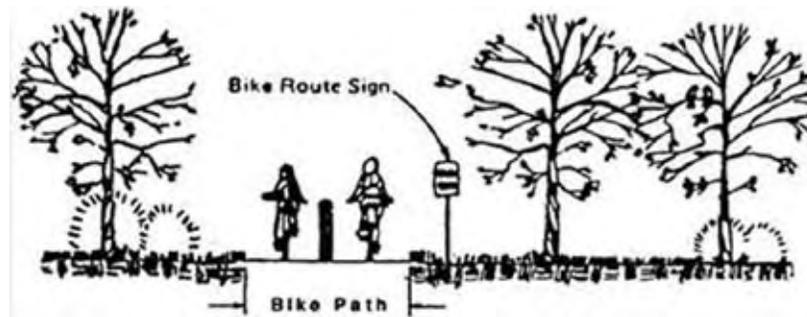
Policy GT-1: The Town shall continue to pursue the development of a SYSTEM OF GREENWAY TRAILS connecting residential areas with, especially, schools and park facilities. Interconnecting such trails with other pedestrian and bikeway facilities shall be a priority.

The kinds of separated off-street trails found in greenways have the advantage of totally removing the pedestrian and the cyclist from congested streets where potential sideswipes or other accidents with cars are more likely. Obviously, greenway trails also provide for a much more pleasant walk or ride in a natural setting than might be found along a busy urban thoroughfare.

One disadvantage of the off-street trail is that it tends to be viewed more as a recreational opportunity than as a serious transportation mode. Off-street trails may also be so remote from urban activity centers and destinations that they have little utility for commuting or running errands. Therefore, when this alternative is employed, such trails should, whenever possible, connect with other pedestrian and bikeway facilities and, in turn, places of employment, shopping, and gathering.



FLAHERTY PARK section of the greenway



Policy GT-2: Each greenway trail should be developed in accordance with the ENVIRONMENTAL CONDITIONS (i.e. soils, slope, vegetation, flooding) of its corridor, its INTENDED USE for travel versus recreation, and the ANTICIPATED TRAFFIC VOLUME of pedestrians and bicyclists. Trail width, paving material and support facilities should fit accordingly.

Wake Forest's *Open Space and Greenway Plan*, published in January 2002, identifies five "greenway trail types" for the Wake Forest Greenway System. Note that of the five types identified, Type 1 calls for no trail development, while Type 5 employs sidewalk and bikeway "connectors" outside the greenway. As a result, off-street trail development needs focus only on Trail Types 2, 3 and 4.

Type 1: No Facility Development—applies to corridors containing environmentally sensitive areas, steep slopes, wetlands or other constraints that make trail facilities undesirable or impossible. The corridor will remain primarily in a natural state as human access will be extremely limited. Hikers are free to use wildlife trails, creeks and other natural features, however, no support facilities, signage or amenities are recommended.

Type 2: Limited Development, Low-impact Uses—applies to corridors containing environmentally sensitive features that limit the extent of greenway facility development. The corridor will remain primarily in a natural state, with gravel, or dirt trails (4 to 6 feet wide) for use by low impact user groups such as hikers or joggers. Type 2 Trails are not intended for cyclists or other wheeled users. These paths, often very narrow, sometimes follow strenuous routes and may limit access to all but the most mobile users. Construction of these trails consists of providing positive drainage for the trail tread and should not involve extensive removal of existing vegetation. Boardwalk or wood surface trails are typically required when crossing wetlands or other poorly drained areas.

Type 3: Multi-Use, Unpaved Trail Development—applies to greenway corridors located outside of areas which experience frequent flooding. Aggregate surface trails (10 feet minimum width) are appropriate for

corridors outside the floodplain where anticipated use or the adjacent landscape dictates a more natural trail. These trails are appropriate for both pedestrian and bicycle activity. Wheelchair users and persons with strollers may also use unpaved trails if they are designed to ADA standards and surfaced with compacted limestone screenings or other hard, permeable surface, crushed stone. Trailhead facilities and other amenities (such as benches, signage and picnic tables) are appropriate with this type trail.

Type 4: Multi-Use Paved Trail Development—applies to corridors where high use is anticipated, that do not contain environmentally sensitive areas, will most likely be used as transportation routes, and are located within frequently flooded areas. The paved trails are generally surfaced with asphalt or concrete (10 feet minimum) for use by several user groups, including bicyclists, joggers, wheelchair users and rollerbladers. Although asphalt is the most common paved surface used for greenway trails, concrete is best for areas experiencing frequent flooding. Trailhead facilities and other amenities will be developed as needed and where appropriate.

Type 5: On-road (Sidewalks and Bikeways)—applies to corridors in urbanized or urbanizing areas where an off-road option is not possible, corridors function as connections between off-road trails and major origins and destinations and where different users have different needs: i.e. recreational cyclists versus commuter cyclists. This category includes sidewalks for pedestrian use and bikeways for cyclists. Bikeways can vary from 6-foot wide bicycle lanes (complete with pavement striping and signage) to 4-foot wide paved roadway shoulders to a 14-foot wide curb lane, shared by both cyclists and motorists. Pedestrian scale lighting, street trees, benches and other amenities can be developed to encourage sidewalk use. (*Also see Policies on Sidewalks and Bikeways*)

Policy GT-3: GREENWAY CONSTRUCTION should be treated as a normal element of infrastructure necessary to support new development.

Currently, developers pay a Parks and Recreation Fee, which funds both parks and greenway construction. Developers are also required to reserve land for greenway construction based on the planned future greenway locations indicated in the Town's *Open Space and Greenway Plan* (2002). The *Bicycle Plan* suggests three ways in which the Town's current requirements regarding greenways might be strengthened. Recommended changes in the requirements are presented below in order of the magnitude of change from least amount of change to most.

- a. Current Parks and Recreation impact fees should be divided into a specific percentage for greenway construction and a specific



SMITH CREEK at Smith Creek Soccer Center

percentage for parks construction. The Town should maintain an accounting approach which tracks the amount of money designated for greenways and the money designated for parks.

b. Developers should be required to build greenways rather than to simply reserve land, and to make a payment-in-lieu separate from the Parks and Recreation fee when construction is not feasible.

c. Developers should be required to include existing or proposed greenways in their plans as submitted, and construct connections to them, just as they would identify and construct connections to existing roads. These adjacent connections should be identified clearly on mapping submitted for site, subdivision, and zoning reviews.

For the purpose of this policy, it is not necessary to decide here which of the three approaches is best. Rather, the intent of the policy is simply to establish the principal that greenways, and the trail system that typically accompanies them, need to be treated the same as other important infrastructure elements such as streets and sidewalks, and water and sewer.

Policy GT-4: Upon transfer of a greenway section from private control to Town control, GREENWAY MAINTENANCE AND SAFETY shall be the responsibility of the Town.

Currently, greenway facilities constructed by neighborhoods must seek permission from the Wake Forest Parks and Recreation Department to join with the municipal system. In addition, connecting to the municipal system does not guarantee maintenance and security responsibilities are transferred from the neighborhood to the Town. To encourage neighborhoods and developers to construct greenways, this policy guarantees that upon acceptance of the greenway into the municipal system, the maintenance and security responsibilities will also be transferred to the Town. At the same time, to compensate for this, the neighborhood or developer might be required to make a “connection fee”. This “connection fee” could either be considered as part of the Parks and Recreation Fee, or could be a separate fee.

Summary of Policies for Greenways

Policy GT-1: The Town shall continue to pursue the development of a SYSTEM OF GREENWAY TRAILS connecting residential areas with, especially, schools and park facilities. Interconnecting such trails with other pedestrian and bikeway facilities shall be a priority.

Policy GT-2: Each greenway trail should be developed in accordance with the ENVIRONMENTAL CONDITIONS (i.e. soils, slope, vegetation, flooding) of its corridor, its INTENDED USE for travel versus recreation, and the ANTICIPATED TRAFFIC VOLUME of pedestrians and bicyclists. Trail width, paving material and support facilities should fit accordingly.

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Public Transportation

Summary of Issues

In the era of the private automobile, public perceptions about public transit have been mixed at best. As our culture has become more dependent than ever upon our cars, many people believe that public subsidies to a bus system or light rail are a *cash-out-of-pocket cost*, while our much greater public subsidies to the road system (and hence the private automobile) are a *public necessity*. Unlike transit system subsidies, however, road subsidies are largely hidden in gasoline taxes, vehicle registration fees, personal property taxes, auto purchase and sales tax costs, traffic signal and signage costs, vehicle maintenance and repair costs, insurance premiums, and so forth—all accepted matter-of-factly as a cost of living.

Consider the huge federal, state and local subsidies for sprawling street systems, multiple lane thoroughfares, highways, bridges and interstates necessary to accommodate cars largely occupied by just one person. Fuel taxes, included in the cost of gasoline, create a steady source of capital to expand the street and highway network. Meanwhile, the ever-expanding road system and sprawling development patterns work in a vicious circle to accelerate the total amount of mileage traveled each year relative to the growth of the population. Thus, the system of fuel taxation and road construction perpetuates itself. Over and above fuel taxation policies, Congressional appropriations divert massive sums of money to the nation's transportation infrastructure, usually with some budget "crumbs" (relatively speaking) set aside for mass transportation, bicycle facilities, and other alternatives to the automobile.

The American car is fueled by annual subsidies of more than \$200 billion, four times larger than the (federal government) deficit reduction package.... We don't pay the true cost of the car at the showroom or the gas pump. We pay it in our medical insurance, or by raising taxes.

David Morris, 1990



For the current American way of life is founded not just on motor transportation but on the religion of the motorcar, and the sacrifices that people are prepared to make for this religion stand outside the realm of rational criticism.

Lewis Mumford, April, 1958

rail transit services are being actively pursued in the Research Triangle area of Wake and Durham counties, Triangle Transit has offered no near-term projections with regard to a transit line reaching as far north as Wake Forest.

Despite the lack of fixed rail transit services being extended to Wake Forest in the foreseeable future, the recently established bus service between Wake Forest and Raleigh will allow Wake Forest residents to tie into the regional transit system. Equally important, the newly instituted circulator bus provides for in-town mobility via a fixed route public transit service for the first time ever within the confines of the Wake Forest community.

Policies for Public Transportation

Policy PT-1: The successful operation and expansion of a public transit system in Wake Forest should be supported and enhanced through the encouragement of COMPACT, TRANSIT COMPATIBLE DEVELOPMENT PATTERNS.

During the town meetings held for the Community Plan, support for public transit was very strong. In fact, among all transportation issues, public transit was the most frequently identified issue receiving support. Citizens expressed a clear desire that Wake Forest's current transportation options should be expanded to include public transit services. To this end, the Town, in cooperation with the Triangle Transit Authority and the City of Raleigh, has established a new express bus service between downtown Wake Forest and downtown Raleigh. The twice a day service connects with an in-town local bus route that circulates through the Town of Wake Forest on a regular schedule. The combined service began in July of this year (2008).

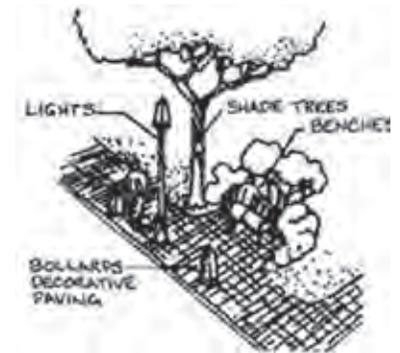
At the present time, land use patterns and development densities do not easily lend themselves to fixed route services. However, the Town is actively working to promote and reinforce new development patterns and neighborhoods that will enable public transit services to operate and gradually expand in the community over time.

Policy PT-2: Site planning for new developments should consider the future location of TRANSIT STOPS AND CONVENIENCE CLUSTERS.

Policy PT-1 above addresses the need for community design at the macro scale a more compactly developed community makes public transit more economical to operate. Policy PT-2, on the other hand, is intended

Isn't it funny that we "invest" in road construction, but we "subsidize" transit? It puts you at an immediate disadvantage.

Andres Duany, 1999



to address community design at the micro level individual development projects should include in their site plans opportunities for future transit stops and convenience clusters.

This means that instead of having a bus stop out on the highway—perhaps on the opposite side of the road from a shopping center—a location can be reserved, perhaps a drop off circle, directly at the front door of the facility. It may mean that instead of only a bus stop sign at the side of the road, a special place for a future bus shelter can be reserved near the heart of a mixed use district, to be fitted out later with newspaper racks, a drinking fountain, area lighting and other amenities. Developers often budget large sums of money on parking facilities for individual cars, yet usually overlook the needs of transit riders and their passengers. This policy seeks to give some level of support to future transit services.

Finally, it must be emphasized that the type of site planning suggested by this policy should require little if any actual outlay of dollars beyond what would normally be allocated for pedestrian improvements.

Summary of Policies for Public Transportation

Policy PT-1: The successful operation and expansion of a public transit system in Wake Forest should be supported and enhanced through the encouragement of COMPACT, TRANSIT COMPATIBLE DEVELOPMENT PATTERNS.

Policy PT-2: Site planning that incorporates TRANSIT STOPS AND CONVENIENCE CLUSTERS shall be required, where appropriate.



Street Trees

Summary of Issues

Issues associated with street trees are primarily related to conflicts of overhead utility lines in older neighborhoods and commercial districts, and the reluctance of some highway engineers to place these “traffic hazards” within striking distance of the automobile. Another issue relates to how trees are viewed in the suburban landscape.

Before World War II, trees were seen as an essential element of a complete street. Trees helped define the “room of the street” through which cars and pedestrians traveled. By contrast, in most suburbs today, trees are used largely for ornamental purposes or to provide a “picture frame” for a house. In other instances, the developer may be trying to achieve a maximum “wooded” look, and simply save as many existing trees as possible. Again, the focus is generally on the setting for the house, rather than the setting for the street.

Beyond the changed purpose of trees in the suburban landscape, other factors have also worked against the need or desire for traditional street trees. The advent of air conditioning and in-home entertainment, for example, has pulled people into their houses and away from their front porches, if they have one. A redirection of outdoor activity from the front porch, front walk and streetspace to the rear deck or patio have made the provision of shade over the room of the street a low priority in today’s suburban subdivisions. Many social experts contend that both of these changes are

What makes a city special, gives it a feel that is different from any other place? In lucky cities, the answer to that question involves trees. Like other enduring features such as rivers, hills, and massive building centers, trees are in place for the long haul.

Sara Ebenreck, 1989

Air conditioning has seduced families into retreating into houses with closed doors and windows, reducing the commonality of neighborhood life and all but making obsolete the society whose open, casual folkways were an appealing hallmark of a sweatier America.

Frank Trippet, Time Magazine



lamentable, in that positive social interaction with one's neighbors has been replaced by a withdrawal to the big screen TV or private rear deck. The "neighborliness" and cohesion of many neighborhoods has suffered as a result. The apparent lack of interest in street trees is but one symptom of much bigger societal changes.

Fortunately, the Town of Wake Forest has broken from the national pattern of disinterest in street trees described above. As discussed in the paragraphs following, Wake Forest has one of the stronger programs in the state concerning the preservation, planting and care of street trees.

Policies for Street Trees

Policy ST-1: The Town should prepare and maintain an official STREET TREE PLANTING MASTER PLAN to address: 1) the retrofitting of existing streets, where appropriate, 2) the planting of future streets and 3) the maintenance and replacement of dead, diseased or disfigured trees.

Support for street trees in Wake Forest is very strong. Area residents at town meetings held for the community plan offered a firm consensus in support of tree planting and preservation. Comments received at the first town meeting, for example, included "strong tree preservation ordinance" and "replant trees". Another citizen simply said "Keep Wake Forest green." Regardless of the exact words chosen, there is little doubt that residents want Wake Forest to be a beautiful community and street trees are one of the most effective, least costly ways to do that.

As a community, Wake Forest has much to be proud of in terms of its past and present support for trees. In 2008, the Town of Wake Forest will celebrate its 30th year as a “**Tree City USA**”—among the longest standing communities with this honor in the state. To receive this designation, a community must demonstrate commitment to the preservation and advancement of trees through four specific measures:

- (1) The Town must have a Tree Board or Department.
- (2) The Town must enact and enforce a Tree Care Ordinance
- (3) The Town must hold an annual Arbor Day Celebration
- (4) The Town must spend at least \$2/capita on trees and related support services

The Town currently has an **Urban Forestry Advisory Board**, appointed by the Board of Commissioners. This nine member board, which meets monthly, has primary responsibilities for the planting, preservation, and maintenance of trees on all public properties and in Town rights of way. Deciding which trees must be removed due to sickness or other reasons is also a responsibility that falls to the Urban Forestry Board. Because such decisions are not often popular, the Town is working through the particulars of how such decisions can best be made.

In 2004, the Town adopted a **Wake Forest Tree Inventory and Management Plan**. During 2008, the Town will enter the fourth year of a five year tree maintenance program. During fiscal year 2007-2008, the Town had a \$75,000 budget for tree replacement. The Town has a goal of planting or replacing at least 500 trees per year.

The Town thus has an outstanding legacy of support for trees upon which to build. The next logical step in moving forward would be the preparation

Trees outstrip most people in the extent and depth of their work for the public good. Twenty-four hours every day, through the spinning cycle of the year, they're on the job creating an environment beneficial to our physical and mental health. They cool the air, break the wind, and intercept the rain. Pollution cleanup goes on noiselessly and without political argument. They cut our fuel bills and increase our property values. Their beauty rivals that of any art gallery. Stress reduction and energy recharge are available at a glance.

Sara Ebenreck, 1989

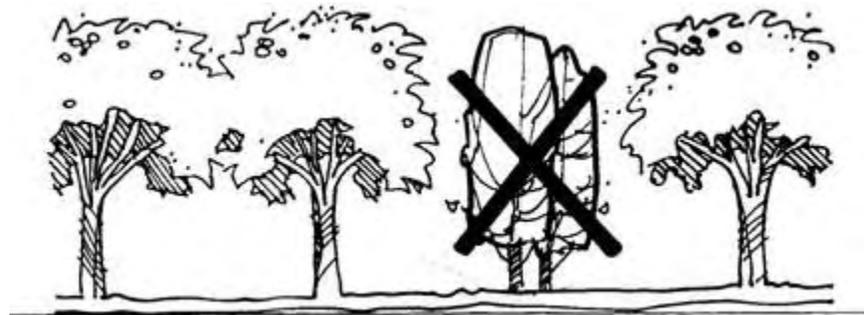


It is necessary to maintain a unity of effect by planting a fair length at a time with one particular tree. The variety which is attained by mixing or alternating the types of tree on any street, is one which loses its interest after about half a dozen trees are passed, and its total effect when carried out over a large area, is only to spread monotony farther than is necessary; but by treating each road differently, planting each with one particular kind of tree and the adjacent roads with a different tree, it is possible to stamp each with some individuality of its own and produce very considerable variety in a district.

Raymond Unwin, 1909

of an official, community-wide **street tree planting master plan**. While this Community Plan can suggest general policies for inclusion in such a tree planting plan, it is recommended that a more detailed street tree planting master plan be prepared with considerable public input, careful planning, and implementation over several years.

Alternatively, if undertaking a master street tree planting plan for the entire community seems overwhelming, the Town could approach the plan by addressing only the most critical parts of the community initially. A street tree planting plan for just the downtown or a nearby downtown neighborhood, for example, would be a good place to start. Similarly, master street tree planting plans might also be incorporated into corridor improvement plans for major streets and gateways into the community.



Policy ST-2: So as to create a unity of design and effect, CONSISTENT STREET TREE SPECIES should occur along predetermined sections of streets.

Many streets in Wake Forest are lined with an uncoordinated collection of different types of trees, shrubbery, grass, or nothing at all. While these items no doubt have been planted in the street plaza with the best of intentions, it is the lack of a consistent whole that detracts from the street appearance. The beauty and comfort of tree-lined streets comes from the consistent rhythm, spacing, and species selected for predetermined sections of streets. Selected segments of a street should be planted with a single street tree species to create a sense of identity, distinction, and pride for that location. Different species may be at their best appearance during different times of the year, thereby encouraging different streets within the town to be “on parade” during their peak times.

Of interest, Chapter 34, Article II of the Town’s Code of Ordinances and Article VI, Section 6 of the Town Zoning Ordinance both set forth specific standards for street tree planting. Included are requirements for the types of small, medium, and large trees that may be planted in the public right

of way, along with limits on how close together they may be planted, as well as distances from curbs, sidewalks, street intersections, etc. Included is an “Official Planting List” that identifies all plant species that may be used to satisfy the landscape requirements of the Town. This list presents a good menu of options from which to select suitable tree species for specific street segments or neighborhood streets. Obviously, the selection of a particular species will require careful dialogue with property owners along a given street segment or block.

Policy ST-3: To prevent future decimation of tree cover over entire areas of the community by disease (e.g. Dutch Elm disease), NO SINGLE TREE SPECIES should comprise more than 10 to 15% of the total street tree population of the town. Further, trees in a neighborhood area should vary from street to street.

Based on the legacy of tree devastation left behind by the notorious Dutch Elm Disease, American Chestnut Blight, and more recently by the Butternut Canker Disease, there has been understandable concern expressed about the risks involved in overusing a single species of tree in a community. The same can be said with regard to the blight and disease that can set upon dogwoods, destroying beauty achieved only through many years of slow growth.

It is out of this concern that many urban foresters suggest that limits be set to curtail the overplanting of a single species in a community or even a large part of a community. Therefore, in addition to this gross percentage limitation, it is also recommended that no individual neighborhood planning area of the town be planted out in just one species. Rather, it is suggested that particular street segments (at most, several blocks of a street), be planted with one species. In this manner, if another devastating tree disease should come along, an entire area of the town will not be rendered suddenly barren.

Policy ST-4: REGULARLY SPACED STREET TREES should be planted in central medians, frontage street medians, plaza strips and, where necessary, in dedicated easements on private property.

One of the most effective methods of improving the entire community at once, while at the same time unifying its character and historic charm, is to plant street trees in consistent fashion along major thoroughfares. Central medians and plaza strips, recommended for most new or redesigned major thoroughfares in the town, are excellent places to plant street trees. It





is also worth noting that the medians of new streets seldom have overhead utilities, thereby eliminating any potential overhead conflicts with full sized street trees. In some areas, where insufficient space exists between the sidewalk and curb, it is necessary to plant street trees within dedicated easements on private property, usually just behind the sidewalk.

Interestingly, the current Municipal Code specifies a *minimum* distance between large trees of 50 feet, while the Town zoning ordinance sets a minimum of 20 feet between trees with an average of one tree per 50 feet. This plan suggests that a *maximum* preferred distance between large street trees should be about 30 to 40 feet on center. Spacing at this interval eventually provides for the canopy over the street that is so universally admired. Ultimately, tree spacing must of course be based on a number of on-site factors (driveway cuts, street light locations, signage, etc.), all of which can be taken into consideration when preparing a master street tree planting plan. The detailed work necessary to prepare a master street tree planting plan should answer the question as to ideal street tree spacing.

Policy ST-5: The PLANTING OR PRESERVATION OF STREET TREES of appropriate size and species should continue to be required as part of the upfront costs of all new development, in accordance with the Town’s street tree planting master plan.

To the Town’s credit, the landscape section of Wake Forest’s zoning ordinance requires that new developments meet specific landscape standards, including the provision of street trees, as part of any approved development plans. These provisions have done much to make Wake Forest’s new commercial and multi-family developments more visually appealing, and the Town of Wake Forest a greener, more beautiful community.

This Community Plan can therefore only commend the Town for requiring that new developments include the planting or preservation of street trees. Any such plantings, of course, should be in accordance with the policies of this plan as well as an overall street tree planting master plan.

Policy ST-6: The Town’s STREET TREE PLANTING PROGRAM should be targeted to maximize available budget dollars for street tree master plan implementation.

Just as the Town requires developers of *new* neighborhoods to provide for street trees, so should the Town seek to retrofit existing neighborhoods and streets with street trees. To maximize the impact of the Town’s street tree planting program and to properly budget limited program dollars, it



Properly placing trees in new construction (should be) as much part of the cost of buildings as pouring concrete and putting in sewers.

Gary Moll, 1989

may be necessary to focus the program in certain parts of the town in any given year. This approach should be effective in creating demand for the program (i.e. Don't let this limited time offer pass your neighborhood by!), and in allowing the Town to specify the type of tree species for designated neighborhoods or street segments in accordance with the Town's street tree master plan. If a particular neighborhood showed little interest in having street trees, or if the landscape character of the neighborhood simply did not lend itself to street trees, the Town would just move along to the next street or neighborhood.

Summary of Policies for Street Trees

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Policy ST-2: So as to create a unity of design and effect, **CONSISTENT STREET TREE SPECIES** should occur along predetermined sections of streets.

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Policy ST-6: The Town's STREET TREE PLANTING PROGRAM should be targeted to maximize available budget dollars for street tree master plan implementation



Street Lights

Summary of Issues

In the decades following World War II, as subdivisions, commercial properties and street layouts became more automobile oriented and less pedestrian friendly, streetlight systems changed accordingly. As a result, most post-war neighborhoods of the twentieth century exhibit a predominance of streetlights designed to serve primarily the automobile; a far smaller number of streetlights are compatible with pedestrian activity. Many factors come into play when discussing the contrasting differences between automobile-oriented streetlights and pedestrian oriented streetlights. These factors include the placement of streetlights relative to the street and sidewalk, the height and distance between streetlights, the type of pole, fixture and lamp employed, and the cost of purchasing, installing, maintaining and powering the streetlights.

To the Town's credit, Wake Forest has developed standards for street lights that have moved the community toward a greater appreciation for

the aesthetics of streetlights as well as the comfort and safety of the pedestrian. The following policies reflect and affirm many of the standards for streetlights currently employed by the Town of Wake Forest and its other two service providers—Wake Electric Membership Corporation and Progress Energy.

Policies for Streetlights

Policy SL-1: Streetlights should be selected and installed according to the design speed and/or intended use of the street or area they serve. Where sidewalks are present or anticipated, pedestrian scaled streetlights should be provided.

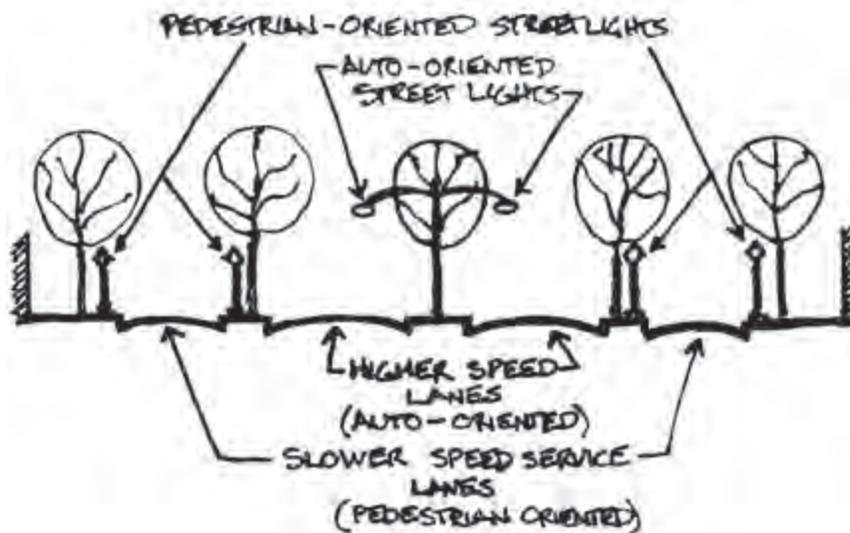
This policy encompasses several factors:

Placement of Streetlights Relative to the Street and Sidewalk

Before the advent of the automobile, streetlights were intended to benefit both the roadway and the pedestrian way in relatively equal priority. Post-war streetlights, however, catered first to the needs of the automobile and only secondarily to the needs of the pedestrian. In fact, while pedestrian scaled streetlights often give equal light to the sidewalk and street, post-war streetlights hang out over the roadway, giving priority to illuminating the automobile's path. Often, if there are mature street trees along the same street section, they block the streetlight from properly lighting the sidewalk. Thus, auto-oriented streetlights alone are usually not acceptable for streets where sidewalks are in place and pedestrians are in need of comfort and security.



STREET TREES can prevent the light from taller auto-oriented streetlights from reaching pedestrians on the sidewalk. Pedestrian oriented streetlights should not be so tall as to be obstructed by street trees.



Height and Distance Between Streetlights

Pressures for greater lighting efficiency after World War II led to fewer streetlights but with brighter bulbs mounted on taller poles. A typical post-war spacing for light fixtures on a 24-30' tall pole, for example, would be about 200 to 300 feet apart in a residential area. By contrast, a typical spacing for streetlights using a more attractive, pedestrian friendly 12-14' tall pole would be about 90' to 100' apart. (Wake Forest's streetlight spacing standard for new developments calls for an average of about 150 feet between lights on 14 foot poles.) Thus, it usually takes at least twice as many pedestrian scaled streetlights to illuminate the same residential street area as the taller, automobile oriented streetlights. It is not surprising, therefore, that as post-war residential areas became more automobile oriented, most American communities chose the efficiency of fewer, taller streetlights at the expense of pedestrian comfort and community appearance.



Retrofitting Existing Neighborhood Streets

The oldest residential areas of Wake Forest are not typically as automobile oriented as the post-war suburban neighborhoods of the 1950s, 60s, 70s and 80s. These older, often historic neighborhoods would be especially benefited by pedestrian scaled streetlights. As noted previously, historic neighborhoods also frequently have mature street trees, which can easily block the light from a taller streetlight, creating many dark voids in the streetscape. Therefore, where existing or redeveloping neighborhoods or commercial areas have sidewalks or other areas of pedestrian activity, pedestrian scaled streetlights should be considered to replace the older automobile oriented lights.

Policy SL-2: The Town of Wake Forest requires that all publicly owned streetlights employ high pressure sodium vapor lamps to produce a warm, amber-colored light source, along with high levels of energy efficiency. Emerging lamp technologies should be periodically evaluated for best color, brightness and energy efficiency.

In the larger scope of issues, this policy may seem to be quite particular. But few people are aware of the dramatic differences in the types of streetlight lamps employed in urban areas. Some create a nighttime ambience that is quite attractive to the human eye, while others produce a light that might best be left in a science fiction movie. As street lighting technologies have changed over the years, and pressures for greater lighting efficiency have escalated, corresponding changes have occurred in the types of light fixtures and lamps used in electric streetlights. The following is a summary of the most prevalent lamp types employed over the past 50+ years.

The first electric powered street lights used *incandescent lamps*. Inexpensive

and easy to install, they are still used occasionally in public lighting, particularly in heritage applications and floodlighting. However, the poor efficacy and short life of incandescent lamps mean the operating costs are relatively high. As a result, they are not generally a good choice for road and street lighting. No incandescent lights are employed for streetlights in Wake Forest.

From the late 1950s through the mid-1970s, the most common street-light fixture in use was the low-pressure *mercury vapor lamp*. This lamp throws off a decidedly bluish light, which some say makes people look like “walking cadavers.” Advances in technology have led to color corrected mercury vapor lamps, which cast a relatively clean white light. Even so, as the lamp grows older, it slowly loses its brightness. Thus, an entire street or neighborhood served by mercury vapor lamps can grow gradually darker over time without area residents knowing exactly why. And, as an old mercury lamp burns dimmer and dimmer, it still consumes the same amount of power. Mercury vapor lamps are not approved for use in streetlights in the Town of Wake Forest.

Another type of streetlight fixture to enter the market has been the *metal halide lamp*. The principal advantage of this lamp is that it has a very pure, white light and therefore produces an excellent color spectrum in people and objects. Not surprisingly, automobile dealerships often employ metal halide lamps to show off their car inventory in the most favorable light. Early metal-halide lamps were problematic due to short service lifetimes, rapid depreciation of light output, and a distinct color shift with age. These shortcomings have been overcome in modern metal halide lamps. The Town of Wake Forest does not employ metal halide lights, however, for street lamps. In fact, the Town requires that these very bright lights be extinguished, even if on private property, at closing or eleven p.m., whichever is earlier.

In the mid-1970s, *high-pressure sodium vapor lamps* entered the market, offering a soft amber light with a higher level of energy efficiency than mercury vapor or metal halide lamps. These lamps also maintain a consistent level of brightness until they burn out, thus avoiding the diminishing brightness problems associated with mercury vapor lamps. These lamps can be used in areas where color rendering ability or appearance is considered important, but where a yellowish appearance in the emitted light is a desired or acceptable outcome. This is the type of light that is used as the standard lamp in street lights in Wake Forest.

What's next? For household lighting, compact fluorescent bulbs are now replacing incandescents, but will this soon apply to streetlights? *Compact triphosphor fluorescent lamps*, rated up to 36 watts are now available for streetlights. The 36 watt lamp offers a light output equivalent to a 150 watt mercury



vapor lamp and a life of 20,000 hours. Compact fluorescent lamps have the advantages of good color rendering, good efficacy and long life. Their compact dimensions are well suited to use in pedestrian and access way lighting. Another advantage of compact fluorescents is their ability to re-strike immediately after a power interruption without the need for a cool-down period, which improves the safety aspects of the lamp for lighting use.

Beyond fluorescent lamps, yet another emerging lamp type is the *light emitting diode* or LED light. LEDs were first used as small indicator lights on electronic devices, but in recent years have been used increasingly for higher power applications such as flashlights and area lighting. The advantages and disadvantages of LED lights are too numerous and complicated to cover adequately here.

Obviously, streetlight lamps, like so many other things involving electronics and technology, require periodic review to determine the best color, brightest lamp, and most energy efficient light source.

Policy SL-3: The Town, in cooperation with Wake Electric Membership Corporation and Progress Energy, should continue to develop and implement joint policies and standards for street light selection, installation, operation and maintenance.

Standardized Pole, Fixture and Lamp

At present, Wake Forest is served by three different electric service providers: Wake Electric Membership Corporation, Progress Energy and the Town of Wake Forest. All three electric service providers have agreed upon a standard pole and light fixture for installation in the town. It is a 14 foot pole with a “colonial lantern style” fixture and high pressure sodium lamp. In newly developing residential areas, the poles are generally spaced 150 feet apart.

Cost Allocation Policy for Residential Streetlights

Under the Town’s current policies, if a residential developer chooses the standard pole for his or her development, the Town or other service provider will pay for the full cost of purchasing and installing the streetlight. If a developer wishes to specify a streetlight other than the standard streetlight, the developer must pay the difference in initial cost for the non-standard streetlight. Likewise, if the developer wishes to have more streetlights than the town’s standard spacing, the developer must pay for the full up front cost of the extra lights.

Operation, Maintenance and Repair Cost Allocations

Once streetlights are installed on a public street, they become the property

of the Town regardless of the electric service provider territory in which they are located. The Town then provides the necessary power or pays the appropriate service provider to power the streetlights. Streetlights installed on a public street at a density greater than the Town's preferred spacing are also provided with power at the Town's expense. Future repairs and replacement costs for standard streetlights are also covered by the town. Future repairs and replacement costs for non-standard streetlights, over and above the R and R costs for standard streetlights, are billed to the developer or to the homeowner's association that takes over from the developer.

Use of Streetlight Poles for Site Lighting

Also under this statement concerning joint streetlight policies and standards, the Town should seek agreement from the other two electric service providers that streetlight poles are not to be used for site lighting. Too often in the past metal halide lamps have been attached to streetlight poles causing diffused, bright white light to spill beyond the site area intended for illumination.

Private Streets

The Town does not cover the initial costs or any operation, maintenance and replacement costs for streetlights on private streets.

Heavily Traveled or Multi-Lane Streets

For heavily traveled streets or streets with multiple lanes, Town standards call for a 30 foot pole with "cobra head style" light and a flat lens to prevent non-directed light pollution.

Policy SL-4: Streetlights should be installed on both sides of a street, unless a newly approved street is planned from the outset to have a sidewalk on only one side.

Wake Forest requires sidewalks on both sides of major streets (collector level or greater). For smaller neighborhood level streets, a sidewalk may be required on one side only. This policy calls for the installation of streetlights to correspond to the presence or absence of sidewalks on a particular side of a street. The intent of this policy is to make sure that no pedestrian will have to walk along an unlighted sidewalk in the Town of Wake Forest.

Policy SL-5: Historic and other special areas of town may receive special streetlight treatment consistent with the desired character and objectives for the area.

Lighting is the greatest single deterrent to crime at night. Well-lit neighborhoods are safe neighborhoods.

walkinginfo.org



As noted previously, the Town of Wake Forest, Wake Electric Membership Corporation and Progress Energy have come together to agree upon a standard streetlight pole, fixture and lamp for use throughout the community. This is commendable as it brings a level of consistency, predictability, efficiency and cost effectiveness to the installation and operation of streetlights in Wake Forest. There are areas in the community, however, that warrant special development standards that may involve building construction, landscaping and yes, streetlights.

One such example is Downtown Wake Forest, where on-going revitalization efforts continue to strengthen the historic, pedestrian oriented character of the heart of the community. Plans are underway to purchase and install higher quality streetlights in the downtown area. Beyond the immediate Downtown, the entire *Renaissance Area* has received significant attention as the Town seeks to leverage investment in the historic and cultural center of Wake Forest. As time passes and budgets allow, this area too should be considered for enhanced, pedestrian oriented streetlighting.

In these special areas, it is only appropriate that latitude should be given to the selection of streetlights that are uniquely suited to the character of the streetscape and certain development objectives. If these areas are truly unique and the Town wishes them to remain so, then specially selected streetlights are in order.

Summary of Policies for Streetlights

Policy SL-1: Streetlights should be selected and installed according to the design speed and/or intended use of the street or area they serve. Where sidewalks are present or anticipated, pedestrian scaled streetlights should be provided.

Policy SL-2: The Town of Wake Forest requires that all publicly owned streetlights employ high pressure sodium vapor lamps to produce a warm, amber-colored light source, along with high levels of energy efficiency. Emerging lamp technologies should be periodically evaluated for best color, brightness and energy efficiency.

Policy SL-3: The Town, in cooperation with Wake Electric Membership Corporation and Progress Energy, should continue to develop and implement joint policies and standards for street light selection, installation, operation and maintenance.

Policy SL-4: Streetlights should be installed on both sides of a street, unless a newly approved street is planned from the outset to have a sidewalk on only one side.

Policy SL-5: Historic and other special areas of town may receive special streetlight treatment consistent with the desired character and objectives for the area.

Utility Poles & Wires

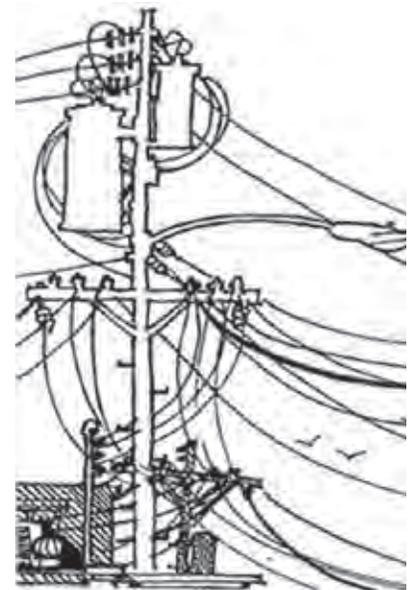
Summary of Issues

Most citizens of Wake Forest, if asked about whether they would prefer that utility wires be above ground or below, would undoubtedly prefer the latter. This perspective is certainly recognized by most developers and homebuilders in Wake Forest, who have routinely placed utilities underground in new subdivisions for many years. Even so, much of Wake Forest was developed before the undergrounding of utilities was the common practice, so many areas of town are criss-crossed with overhead utilities.

Despite an intuitive sense that underground utilities are preferred by most people, the overhead utility issue received only modest attention at the town meetings held for the Community Plan. Clearly, in the minds of most citizens, there are other more pressing issues facing Wake Forest than the desire to relocate overhead utilities underground. This may be just as well, given the level of complexity and cost involved in putting existing overhead wires underground. Complicating factors during conversion are many and include:

- utility service interruptions must be minimized,
- traffic holdups must be avoided while streets, driveways, sidewalks and curbs are broken up and replaced,
- yards with existing trees and other landscaping must be trenched,
- existing water and sewer lines may need relocation, etc.
- several utility companies may share the same poles, requiring multiple services to be undergrounded at the same time.

Since the costs of converting a major part of the community from overhead to underground utilities are prohibitive (barring some major technological advancement), the following policy recommendations suggest that priority areas be identified in advance to facilitate gradual or partial conversion.





In Florida and North Carolina, statewide initiatives to [place existing overhead power lines underground] would have prompted a rate increase of 80 to 125 percent, according to a report by the Edison Electric Institute, an industry trade group.

But in new construction, it's no more expensive to put wires underground, because the ground is being excavated already. Burying wires has become the industry standard over the past 30 years, and most municipalities' comprehensive plans include a requirement for underground wires in new developments.

"Burying power lines: Is it worth the cost?" Seattle Times, January 9, 2007

Policies for Utility Poles and Wires

Policy UPW-1: The Town should maintain a master plan for the undergrounding of utilities, with priority given to pre-determined areas.

Since undergrounding of existing overhead utilities is so expensive, and there are many areas affected, a *master plan for undergrounding* is recommended to identify specific areas with special priorities. Priority areas deserving of undergrounding might include critical scenic spots, historic streets of particular significance, and locations involving important views. And, as in the case for street trees, plans for undergrounding of utilities may be incorporated into master streetscape or highway corridor plans, where applicable. While this need not be an elaborate plan, the relative costs of undergrounding could be estimated for each priority area, along with some notion of the benefits and merits.

The preparation of such a plan would not require widespread community involvement early on, but could take the form of a more general, technical document. This would be similar in nature to the priority setting systems that many cities use to determine repaving schedules for town streets. Implementation of any component of the plan, however, would require intensive involvement to coordinate service interruptions, ground disturbances, potential traffic reroutings, etc. Such participation during implementation would require the full cross-section of the interests involved, including utility companies; residential, commercial and industrial property owners; the Town of Wake Forest; the State Department of Transportation, and others.

Policy UPW-2: Major town entrances and gateway corridors should receive first priority for the undergrounding of overhead utilities.

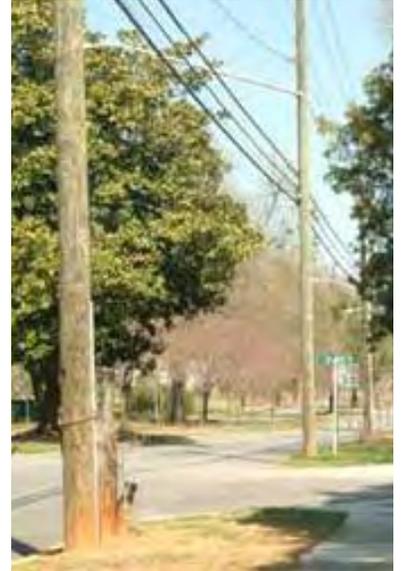
Wake Forest's major streets are the community's windows to the world. In addition to visitors and prospective business interests seeing the community for the first time, residents of Wake Forest would be benefited by enhancements to what are often regarded as some of the least attractive aspects of the town. If the Town were to embark on a commitment to street tree planting along its major thoroughfares, for example, then every consideration should be given to the relocation of overhead utilities from these same thoroughfares. Specifically, as existing thoroughfares are widened or redesigned, provision should be included in the construction plans for the undergrounding or relocations of overhead wires.

Policy UPW-3: High visibility, pedestrian-oriented areas should also receive priority for the undergrounding of overhead utilities.

Of all streetscape elements in the older parts of town, overhead utilities can be quite damaging to an attractive, pedestrian-scaled environment. In this regard, the Town has worked steadily to underground the utilities in the heart of the downtown. Further, existing streetlights in the downtown area will soon be replaced by higher quality streetlights well suited for a pedestrian-scaled streetscape. This is clearly befitting of the significance attributed to Wake Forest's downtown area by both residents and visitors to the town. This same commitment to undergrounding should be extended to other strategic parts of the Renaissance Planning Area that have a clear pedestrian orientation.

Policy UPW-4: Overhead utilities in other priority areas should be placed underground or relocated as opportunities arise.

An "opportunity program" for conversion is suggested to take advantage of situations as they arise when existing overhead utilities must be altered, changed, or relocated. Periodically, utilities must change their overhead facilities to increase capacity, update obsolete equipment, or replace it when it is worn out. These are the opportunities to look for, and plan ahead for, as changes occur. Other opportunities for conversion present themselves when a street is improved or relocated, when major building renovations occur, and when a low-density residential area is planned for conversion to commercial or more intensive residential uses.



Summary of Policies for Utility Poles and Wires

Policy UPW-1: The Town should maintain a master plan for the undergrounding of utilities, with priority given to pre-determined areas.

Policy UPW-2: Major town entrances and gateway corridors should receive first priority for the undergrounding of overhead utilities.

Policy UPW-3: High visibility, pedestrian-oriented areas should receive second priority for the undergrounding of overhead utilities.

Policy UPW-4: Overhead utilities in other priority areas should be placed underground or relocated as opportunities arise.

Wireless Telecommunication Facilities

Summary of Issues

During the past ten years, the use of wireless communications has exploded. As the demand for wireless services has accelerated, so too has the demand for comprehensive networks of cell towers and related facilities. Responsibility for dealing with the aesthetic and safety issues related to new cell tower¹ placement (or use of existing structures) has fallen largely to local governments, with the Town of Wake Forest being no exception. Article VI, Section 11 of the Town's zoning ordinance contains some 25 pages of text dealing exclusively with "Wireless Telecommunication Facilities". Some of the specific issues that the ordinance provisions address include:

- A detailed process for review of applications
- Radiation safety
- Aviation lighting
- Shared use of existing towers

¹ For the sake of brevity and convenience, the term "cell tower" will be employed in this chapter instead of the longer "wireless telecommunication facility". The term "cell tower" includes towers of all types, kinds and structures, including but not limited to buildings, church steeples, silos, water towers, signs or other structures that can be used as a support structure for antennas or the functional equivalent of such.

- General prohibition of cell towers in Residential Districts, Historic Districts and Renaissance Districts
- Notification to public as to intent to construct tower
- Use of existing buildings, water tanks or other structures for antenna placement
- Use of stealth or camouflage technology to minimize visual impacts
- Requirement for a visual impact assessment
- Required photos of “before” and “after” views
- Building materials, colors and textures to blend with surroundings
- Requirements for tower access road and parking
- Application fees involved
- Buffering and screening required at the base of the tower
- Location criteria in order of preferred types of locations
- New freestanding towers to be of monopole design (no guy wires)
- Maximum height and actual height required to do the job



While the Town of Wake Forest has sought to stay ahead of the cell tower placement issue by adopting these special standards, wireless technologies are constantly evolving. Recently, for example, changes in cell phone technology are causing a shift away from less frequently spaced but taller cell towers, and toward shorter but more frequently spaced towers. This trend may result in increased pressures to place cell towers in locations previously deemed off limits—such as residential areas and historic districts. Provided that the new, shorter towers can be fully camouflaged, this is an issue that may need to be revisited in the near future.

Policies for Wireless Telecommunication Facilities

Policy WTF-1: The development of wireless service technology should be facilitated as an economic development asset and significant benefit to the town and its residents.

For the community of Wake Forest to continue to compete in the twenty-first century economy, a good network of wireless communication facilities is necessary. The Town should therefore seek to be an advocate for enhanced wireless telecommunication facilities in the area. As noted in the next policy, this does not mean to abandon concern for the proper

placement, appearance and safety of facilities; rather it simply recognizes that wireless communications are an essential part of doing business in today's world, and the Town should be an active participant in making a good wireless network possible in Wake Forest.

Policy WTF-2: The impacts of wireless telecommunication facilities should not be permitted to compromise the health, safety and public welfare of area residents; nor should such facilities be allowed to diminish the character of the community and visual quality of its environment.

This policy affirms the Town's commitment to its fundamental responsibility to protect the health, safety and public welfare of its residents. Beyond that basic responsibility, the Town has a special duty to protect those features of the Wake Forest community that make it uniquely attractive in the Triangle area. Namely, Wake Forest's community character and small town image are driving forces in the attractiveness of the town for new residents and businesses. Certain wireless technologies may be here for a time, but the historic character and quality of Wake Forest must survive for countless more generations. This perspective must always be kept in mind when reviewing cell tower and similar requests.

Policy WTF-3: In residential areas, historic districts and the Renaissance districts, cell towers should only be considered when there is no alternative for serving those areas and no other alternative wireless telecommunication structure can be utilized. The town expects that the least visually disruptive technology will be used in these visually sensitive areas

In this policy statement, the broader, community-wide concerns addressed by WTF-3 are made specific to Wake Forest's residential areas, historic districts and the Renaissance districts. Further, the particular nature of wireless technology as it affects the visual character of these areas is specifically addressed so that there will be no question as to the expectations of the Town concerning cell towers and related facilities.

Policy WTF-4: As new technologies and structural requirements for wireless capabilities emerge over time, the Town should initiate updates to its standards for wireless telecommunication facilities.

As noted previously, the Town has devoted more than two dozen pages of its zoning ordinance to the review and regulation of wireless

telecommunication facilities. One reality of wireless technology is that it is constantly changing, usually faster than many other forms of technology. This policy simply calls for the Town to periodically revisit its permitting requirements and procedures to keep pace with changes in wireless communications.

Summary of Policies for Wireless Telecommunication Facilities

Policy WTF-1: The development of wireless service technology should be facilitated as an economic development asset and significant benefit to the town and its residents.

Policy WTF-2: The impacts of wireless telecommunication facilities should not be permitted to compromise the health, safety and public welfare of area residents; nor should such facilities be allowed to diminish the character of the community and visual quality of its environment.

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Policy WTF-4: As new technologies and structural requirements for wireless capabilities emerge over time, the Town should initiate updates to its standards for wireless telecommunication facilities.



Town and Special Area Entrances

Summary of the Issues

In a perfect world, no community would have more than about 30,000 residents, and would be surrounded by a permanently dedicated green belt or open space buffer.¹ As a result, planned open spaces would occur around each town and between one town and the next. Since we do not live in a perfect world, however, American cities, including Wake Forest, have simply spilled out further and further into the countryside as they have grown. This problem has become more acute as the automobile and road building have made less costly land farther out more accessible for development. The problem and challenge, then, is to create some form of identity and sense of entry into the town from amidst the blurred urban/rural interface.

Policies for Town and Special Area Entrances

Policy TSE-1: Noticeable streetscape improvements should be employed to clearly announce a town entrance, and to enhance gateway corridors.

Cities and towns, by their very nature, should be more urbane and more formal in their treatment of streetscapes, than would be found along a rural highway. Wake Forest should therefore employ a variety of streetscape improvements to let the traveler know that he or she is entering a different and special place. These improvements may include the following:

1) Introduce decorative streetlights and street light standards. In Great Britain, for example, the onset of streetlights along a major thoroughfare is an unmistakable announcement that the motorist is leaving the country and entering a town. So deliberate are the British in using this technique, that legal speed limits are understood to drop immediately upon the sighting of streetlights.

¹ This 30,000 population standard is in keeping with the utopian ideal first put forth by famed urban theorist Ebenezer Howard (*Garden Cities of To-Morrow*, 1902). This threshold is based upon both physical attributes (roads, water and sewer utilities, parks, schools, access to the countryside, etc.) as well as social considerations (voter interest, access to political leaders, ability to participate in local government, ability to influence education/schools, a feeling of belonging, etc.)

(Also see *Streetlight Policies*)

2) Introduce sidewalks and bikeways. At least theoretically, areas inside the town limits should be developed at a higher, walkable level of intensity than the surrounding countryside. Higher density development, in turn, calls for sidewalks and bikeways. The presence of a sidewalk is a natural indicator of an urban setting, while the introduction of bikeways along either an extra wide outside lane or as a separate parallel path, connotes a commitment to alternative forms of transportation.

3) Introduce median strips, planting plazas, street trees and supplemental landscaping. The contribution of each of these elements to the appearance of the major street system has already been discussed in previous sections. However, it is important to note that there is perhaps no single item that can radically alter the appearance of a street than the introduction of consistently spaced, canopy-creating street trees. In much the same way that a new coat of paint can hide a world of defects, street trees can make up for much of the visual blight associated with commercial strip development. (Also see *Street Tree Policies*)

4) Introduce curb and gutter. Curb and gutter has historically been associated with urban streets. In addition to its engineering and traffic containment advantages in the urban setting, the installation of curb and gutter renders a clean and definitive shape to the street and the sense of formality desired in a city. Of course, with the use of curb and gutter comes the responsibility to capture and treat stormwater runoff before it enters nearby water bodies or streams.

5) Show contrast in signage through enhanced sign controls. Commercial signage is second only to the visual quality of parking areas in establishing the image of a commercial strip. Attractive, well done signage can have a startling, positive impact on new arrivals to a community. To the town's credit, Wake Forest already has signage standards in place that require monument style or building-mounted signage rather than the typical mish mash of competing, pole mounted signs and billboards.

6) Put overhead utilities underground. While the Utility Poles and Wires section of this plan deals exclusively with this item, it is worth remembering that the absence of utility poles and overhead wires makes a noticeable statement to the motorist first entering a community. (Also see *Utility Poles and Wires Policies*)

In any case, we should secure some orderly line up to which the country and town may each extend and stop definitely, so avoiding the irregular margin of rubbish-heaps and derelict building land which spoils the approach to almost all our towns today.

Raymond Unwin, 1909

Towns and villages...did not welcome the traveler with signs announcing name and population; after all, the distinction between city and country was still sharp, and the local folk knew where they lived. Kenneth

T. Jackson, 1985, on entryways into small towns in the 1920s

Though we shall not copy the fortified wall of the old city, we may take from it a most pregnant suggestion of the value of defining and limiting towns, suburbs, and new areas generally.

Raymond Unwin, 1909



7) Bring buildings up to the street and put parking to the side or enclosed in an interior space between buildings.

By pulling buildings up to the street, a sense of street enclosure and space is created through which the motorist then travels. This building placement, used in combination with street trees, is in stark contrast with the “sea of asphalt” perspective seen along most American thoroughfares today, including Wake Forest’s major gateway corridors.

8) Invest in substantial welcome signs in conjunction with a distinguishable, positive change in the streetscape.

Historically, welcome signs have been the method of choice to announce a point of entry into a community. When a town is compact and its edges well defined, the traditional monument style, landscaped welcome sign is quite appropriate to announce an entry into a different and distinct place. However, when a town’s political jurisdiction simply ends at a nondescript location along a busy highway, a substantial welcome sign can appear trivialized by its surroundings. Such a sign becomes easily lost amid the chaos of franchise style businesses, uninterrupted parking lots, and competing commercial signage oftentimes found in such locations.

Therefore, a substantial investment in a welcome sign should generally be timed for installation in conjunction with an overall strategy to improve the streetscape to the level of quality image that the community wishes to present. In the interim, a standard “Wake Forest Town Limits” sign should be sufficient.

Policy TSE-2: As the Town limits expand, streetscape improvements should be extended accordingly.

This policy simply affirms the desirability of having streetscape improvements keep up with town growth. When implementing such a policy, it should be noted that the ability to extend streetscape improvements is oftentimes not as simple as it might seem. Differing development controls for the area outside the Town and its extraterritorial jurisdiction will, over time, create a development pattern that is often not easily converted to a desirable pattern of streetscape improvements inside the Town limits. It is usually necessary to have different styles of streetscape improvements for various sections of major thoroughfares to work with the predominant development pattern in place for that particular section of street. A master streetscape plan, associated with a special highway corridor plan, may be the best way to proceed.

Also, joint, inter-local corridor planning, the appropriate expansion of extra-territorial jurisdiction, or the timely annexation of new areas for major thoroughfares while still in their development infancy, would all be helpful.

Policy TSE-3: Where a bridge, underpass, overpass or other roadway feature is located at an entry point to the town or some portion of it, special “gateway” treatment of the roadway feature should be employed to enhance a sense of arrival.

Obviously, this policy works best for roadway features where (1) the regulated speed of the road is not fast and (2) the Town has some level of influence over the design of the road as it intersects with the roadway feature. While the railroad underpass downtown is a classic example of such a feature, the Capital Boulevard (US 1) bridge over the Neuse River would appear to present problems in meeting the two criteria mentioned above.

Dating back to medieval Europe, the use of such features to signify arrival in a special place is no less valid today than it was centuries ago. At the same time, there are major differences between the entry gateway of today and medieval gate designed to close out unwanted intruders. Modern community gateways are not obstructions. They do not cause traffic to stop, or even inhibit traffic movement for that matter. Nor do they swing closed, or even have elements capable of being closed. (Interestingly, today many new suburban subdivisions and planned unit developments have adopted a new form of the medieval-type gate- electronically controlled gates which are intended to lock out all but residents and their invited guests. This form of exclusive isolationism at the neighborhood level is *not* encouraged by this plan.)





BRIDGES NEED NOT BE UGLY MONOLITHS. The City of Salisbury, NC requested and received special design treatments for the Innes Street Bridge due to its strategic location on the main gateway into the city's historic downtown from Interstate 85. The replacement bridge was jointly funded by the North Carolina Department of Transportation and the City of Salisbury. Cost sharing allowed the bridge



to have special amenities such as open metal hand rails, embossed parapet walls, ornamental streetlight pedestals, decorative streetlights, wide brick-like sidewalks, and more extensive landscaping in median planters on bridge approaches (not seen here).

Photos courtesy of NCDOT.

Special community gateway treatments are intended to be dramatic visual and spatial cues for the traveler. As such, there are a multitude of options, ranging from modest aesthetic improvements to major building forms intended to bring a sense of passage to the travel corridor. Such features may include, for example, an overhead arch, bridging the distance from one side of the travel corridor to the other. Architectural interest in such structures can be enhanced through the effective use of voids and solids, building materials, exterior lighting, flags, landscaping, signage and other forms of tasteful ornamentation. Also, for important community festivals or arts events, special announcement banners might be placed across the gateway.

Summary of Policies for Town and Special Area Entrances

Policy TSE-1: Noticeable streetscape improvements should be employed to clearly announce a town entrance, and to enhance gateway corridors.

- 1) Introduce decorative streetlights and street light standards.
- 2) Introduce sidewalks and bikeways.
- 3) Introduce median strips, planting plazas, street trees and supplemental landscaping.

- 4) Introduce curb and gutter.
- 5) Show contrast in signage through enhanced sign controls.
- 6) Put overhead utilities underground.
- 7) Bring buildings up to the street and put parking to the side or enclosed in an interior space between buildings.
- 8) Invest in substantial welcome signs in conjunction with a distinguishable, positive change in the streetscape.

Policy TSE-2: As the Town limits expand, streetscape improvements should be extended accordingly.

Policy TSE-3: Where a bridge, underpass, overpass or other roadway feature is located at an entry point to the town or some portion of it, special “gateway” treatment of the roadway feature should be employed to enhance a sense of arrival.

Community Character

Summary of the Issues

As revealed at the town meetings for this plan, most town residents point to US-1 and sections of US-1A as having some of the most objectionable forms of development in Wake Forest. Wake Forest is not alone in this regard, as hundreds of cities across the country are struggling with the same plight of automobile oriented strip commercial development.

As is the case with most issues of this magnitude, the problem is multi-faceted. Since the turn of the century, building materials and techniques have been becoming increasingly homogenized throughout the United States. At the same time, the real estate development world has grown small, with development techniques and formulas being adopted by most of the major retail chains. Evidence of this can be readily seen in formula-based discount stores, motel chains, video rental outlets, fast food restaurants, freestanding drug stores, and many other types of buildings.

For several decades, development regulations have emphasized separation of land uses above all else, with little or no concern for building architecture or scale. This has done little to prevent the spread of “Anywhere USA” development along commercial strips throughout the country. Meanwhile, the banking industry and real estate finance community have also become entrenched in real estate formulas for commercial success. Occasional upheavals in the real estate and banking industries merely added fuel to the

There's no there, there.

Gertrude Stein

As no two individuals should be alike, neither should any two places be alike. Yet, for the last 50 years there has been a steady homogenization of our communities, and a steady rise in dissatisfaction with our quality of life. What can we do to manage change so as to prevent our communities from becoming ANYPLACE!

Introduction to a community planning workshop entitled, "Avoiding the Anyplace Syndrome", February 1992, Boulder, CO

fire of conservatism in development (i.e. doing only what has been done successfully in the recent past).

Fortunately, Wake Forest has taken positive steps to counter such monotonous development and seek to honor the rich history and significant architectural resources of the town. To preserve the town's identity and character, the Town has enacted many beneficial requirements for new development in the town zoning ordinance. The following policy recommendations are intended to offer support and encouragement to the Town's initiatives in this regard. (See Article VI, Section 9 Appearance Standards of the Wake Forest Zoning Ordinance.)

Policies for Community Character

Policy CC-1: New, expanding, or improved businesses should employ architectural standards consistent with Wake Forest's architectural character and should avoid standard prototype designs otherwise employed in "Anywhere USA".

Experience from cities around the country reveals that if the community does not specify what it wants, it will normally receive whatever the chain store development or franchise formula specifies. Today, most national chain stores and franchise-operated businesses have more than one "model" for their stores. And, if a chain store wants to do business in a community where the demographics and disposable incomes match their locational criteria, most will alter the design the exterior of the building and parking areas to better fit the context of the community. Examples of such custom designed chain stores and franchise buildings were rare fifteen years ago, but are much more common today.

Communities that are depressed economically and fighting a hard battle for new investment may feel that asking for a higher standard of design might prevent new businesses and development from coming in. While this argument may have some merit in communities struggling to grow, it is clearly not the case in Wake Forest, where demand for new residential and commercial development continues to be strong, and promises to become even greater as pressures for growth reach out from the rapidly expanding Raleigh/Research Triangle area.

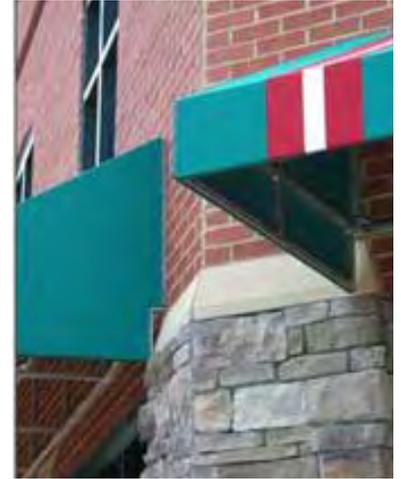
The intent of Wake Forest's Overall Design and Appearance Standards is to establish a desirable level of architectural character without being overly burdensome. Such standards (in abbreviated form) include, for example:

Basic Building Design

- **Scale:** human scale at ground level, at entryways, and along street frontages
- **Avoiding Monotony:** varying detail, form and siting
- **Individual Storefronts:** unified exterior design elements while providing distinctiveness from storefront to storefront.
- **Building Materials:** predominately high quality resulting in increased value

Architectural Features

- **Roofs:** varied to reduce the scale of structures and add visual interest.
- **Long Facades:** (over 100 feet) interrupted by recesses, projections, windows, awnings, and/or arcades in a repeating pattern
- **Entryways:** clearly defined and featuring canopies or porticos, arcades, arches, wing walls, and/or planters. Materials: brick, stucco, wood, stone, and tinted/textured decorative concrete masonry units, or other similar materials
- **Colors:** harmonious with surrounding development and of low reflectance earth tone, muted, subtle, or neutral colors. Building trim may feature brighter colors.
- **Parking Lots:** split into sections on different sides of the building or between buildings so as not to be easily visible from the street.
- **Trash Containment Areas:** located and designed so as not to be visible from the view of nearby streets and properties.
- **Mechanical and Utility Equipment:** screened from view from nearby streets and properties
- **Streetscape Protection:** damage to the existing streetscape shall be corrected at the owner's expense
- **Sidewalks:** constructed to facilitate movement of pedestrians within the site and connect to the town sidewalk system.
- **Cultural Resources:** site development to consider impacts on historic properties, points of high elevation, significant sites, important views, silos and mature exceptional trees.
- **Accent Light Strips:** limited applications to highlight horizontal architectural features only, installed to hide light source



But what folly it is, surely, that we should allow our cheap transit to reduce all our towns to one dead level of characterless jumble instead of preserving in each its natural characteristic, which for ages has lent an interest and variety to our towns and villages. . .

Raymond Unwin, 1909

There is no doubt that in this advertising age some little sacrifice of individual interest might be involved in (designing buildings to be compatible with their surroundings). The business man at any rate believes that he must shout if he is to live, and naturally desires his architect to help him to make his building do some of the shouting for him. The young and original architect, too, must become known if he is to secure commissions, and a little shouting in his earlier buildings may greatly aid him.

But, if we are to have beauty of surroundings-and for what does the profession of architecture exist if it is not to produce beautiful surroundings?-we must set our faces against the development of such incongruities in our buildings as completely destroy the harmony of our street pictures. Harmony does not require monotony, but a proper relation between the different colours and parts.

Raymond Unwin, 1909

Policy CC-2: Exceptional locations, views and vistas in the town should receive exceptional treatment and/or protection in design and development.

In every community, there are normally a number of especially significant locations, views and vistas that have a high degree of visibility or strategic importance. These locations may include major intersections or, in the case of Wake Forest, individual buildings of historic significance such as the church steeple at Southeastern Baptist Theological Seminary, and special areas such as Downtown Wake Forest and the Wake Forest Historic District.

Due to the outstanding significance of these locations to the overall economic and aesthetic value of the community, the Town of Wake Forest has developed special development standards concerning these areas. These more specific appearance standards for Downtown Wake Forest and the Renaissance Area Districts will be discussed in a separate section of this plan.

Policy CC-3: Noteworthy buildings, important outdoor spaces, objects of historic merit, important monuments, and significant works of art should be placed in positions of visibility and prominence. Their placement should be coordinated with street design.

Over the last 40 to 50 years, the practice of placing significant structures, outdoor places, and objects in the context of their site, has given way largely to the real estate forces of minimum cost/ maximum profit and (in the short term) optimum traffic flow.

In the public sector arena, for example, new schools and parks are often relegated to whatever land might be donated or acquired most cheaply. Post offices and other government buildings, once the proud anchors of strategic central locations, are today sentenced to suburban highway locations, often buried among the malaise of commercial strip development. Fire halls, which once embodied the pride of a particular district in the community, are now assigned a similar fate. It is unfortunate that the costs of maintaining the sprawling suburban infrastructure of streets and water and sewer lines are bankrupting public coffers. How much better off our communities would be if these same monies could be used for public buildings and outdoor spaces of more lasting and inspirational significance.

The private sector has also largely abandoned a commitment to “community” in favor of commitment to the individual property. Site plans

cater mostly to the convenient circulation of the automobile, with building placement dictated more by site circulation and parking than by building placement for community appearance.

This plan recommends that as street layouts for new neighborhood planning areas are designed, the termination points of some streets (normally “t” or “y” intersections) be reserved for buildings, outdoor spaces and objects of significant community value. Such uses might include schools, libraries, churches, public squares, etc. Similarly, private sector buildings of unusual merit or purpose should be placed in locations that anchor a street end or vista, and give bearing and direction to citizens and newcomers alike.

Policy CC-4: Significant natural and existing man-made elements should be incorporated into the thematic design of new developments.

Normally, this can be accomplished by one of two methods: physical design and name recognition. Physical design can mean saving a significant tree, small pond, brook, rock outcropping, stone wall, etc. and incorporating these items into the design of the development. It can also mean saving an historic structure and creating a thematic design around it. Such a design might include architecturally compatible buildings, coordinated business and informational signage, thematic streetlights and benches, etc.

Name recognition means picking up on some historic person, event, or other colloquialism unique to the area of the development. The entire development can be named accordingly, as well as its individual streets, park sites, etc.

Policy CC-5: Large trees, ponds, creeks, or other natural features of the landscape should be saved when locating new streets, buildings, parking lots, etc.

This policy recommendation means to work with the land and its natural assets rather than fighting them. Economic as well as environmental savings can be gained, for example, by curving an occasional street to save a large tree or pond. Many developers today have come to realize that the preservation of a significant tree or other natural feature may become one of the most important items in showing off the entryway or focal point of a new development. At other times, however, trees are cleared simply because they are an inconvenience to a particular chain store’s development formula or style. These are the situations where deliberate and conscientious public policy must step in to prevent wholesale destruction of a site’s natural features.



The views out of a town into the country beyond have always a special charm, and it may be well worthwhile to secure these distant views of sea and mountain, and even to bring into the heart of the town glimpses of sunset glory, where openings to the west can be secured.

Raymond Unwin, 1909



Policy CC-6: Community character should be supported by development that is compatible when considered within the context of the surrounding area.

It is important that development should strike a balance between creativity and innovation on one hand while avoiding obtrusive, incongruous structures on the other. Wake Forest does not wish to be known as the community where new development must be “stamped out of the same mold” to be approved. Neither should it be a conglomeration of eclectic structures and sites where nothing seems to fit together and there is no harmony within the urban fabric. Wake Forest is seeking designers and developers who have the imagination to contribute positively to the total collection of buildings in the community, while not going so far as to call attention to their project at the expense of other properties around them.

Policy CC-7: Exterior lighting should be attractive, functional and safety conscious, while also avoiding negative impacts on the night sky visibility of Wake Forest.

Exterior lighting in Wake Forest should be night sky friendly with no or minimal upward spill. Rather than illuminating a building or tree, exterior lighting should have as its priority the functional illumination of the pedestrian environment and, as appropriate, vehicular corridors. Consistent with a low key approach to lighting, Wake Forest has a clear preference for the softer glow of high pressure sodium (HPS) lighting over the harsh nature of white lighting such as that provided by metal halide lamps. Uplighting of buildings and trees is not encouraged. Any architectural



lighting should be by low voltage downlighting. Note: Exposed strip lighting, neon lighting and other forms of exposed lighting are also not advocated by this policy recommendation.

Summary of Policies for Community Character

Policy CC-1: New, expanding, or improved businesses should employ architectural standards consistent with Wake Forest's architectural character and should avoid standard prototype designs otherwise employed in "Anywhere USA".

Policy CC-2: Exceptional locations, views and vistas in the town should receive exceptional treatment and/or protection in design and development.

Policy CC-3: Noteworthy buildings, important outdoor spaces, objects of historic merit, important monuments, and significant works of art should be placed in positions of visibility and prominence. Their placement should be coordinated with street design.

Policy CC-4: Significant natural and existing man-made elements should be incorporated into the thematic design of new developments.

Policy CC-5: Large trees, ponds, creeks, or other natural features of the landscape should be saved when locating new streets, buildings, parking lots, etc.

Policy CC-6: Community character should be supported by development that is compatible when considered within the context of the surrounding area.

Policy CC-7: Exterior lighting should be attractive, functional and safety conscious, while also avoiding negative impacts on the night sky visibility of Wake Forest.





Regional Intergovernmental Cooperation

Summary of the Issues

As Wake County and its municipalities continue to grow in size and proximity to each other, the functional relationships among these local governments must also become more coordinated. With each passing year, public decision-making on key issues such as transportation, water and sewer, schools and solid waste management require greater levels of advanced planning and cooperation. These key elements of the area's basic infrastructure do not stop at corporate boundaries; what happens in one jurisdiction often has profound impacts on the adjoining jurisdiction(s). Through these policies and this plan, the Town of Wake Forest wishes to go on record as being strongly in favor of local inter-governmental efforts to provide and plan for these critical elements of a regional infrastructure.

Policies for Regional Transportation

Policy RT-1: The Town should continue to anticipate and plan for the impacts of new HIGH SPEED RAIL SERVICE as it passes through Wake Forest en route to major urban centers north and south along the east coast.



Recent plans (February 2008) of the *Southeast High Speed Rail Corridor* (<http://www.sehsr.org/>) call for high speed rail service to pass through the town of Wake Forest without stopping. Trains originating in Washington, DC would travel through northern Wake County headed for Raleigh, Charlotte and points south. Corridor maps for the high speed rail line through the town of Wake Forest show a general alignment with the existing rail line with only a few minor changes. Significantly, those portions of the line through downtown Wake Forest follow the existing tracks with only one minor deviation. Near the intersection of the existing rail line with Holding Avenue, the proposed corridor would shift eastward some 100 feet to straighten out a curve considered too great for high speed use. There are also two other locations well north and well south of the town center where minor realignments would be employed to straighten out some curved sections of line. These realignments are not expected to seriously impact existing developments or land uses in their vicinity.

Typical concerns associated with high speed rail through a community include noise, sometimes at unusual hours, and traffic conflicts. At-grade intersections with local streets are viewed with particular concern by rail officials; there are often initiatives undertaken to permanently close such crossings. Fortunately, the high speed trains will pass through the community so quickly that noise and interruption of traffic should be of short duration.

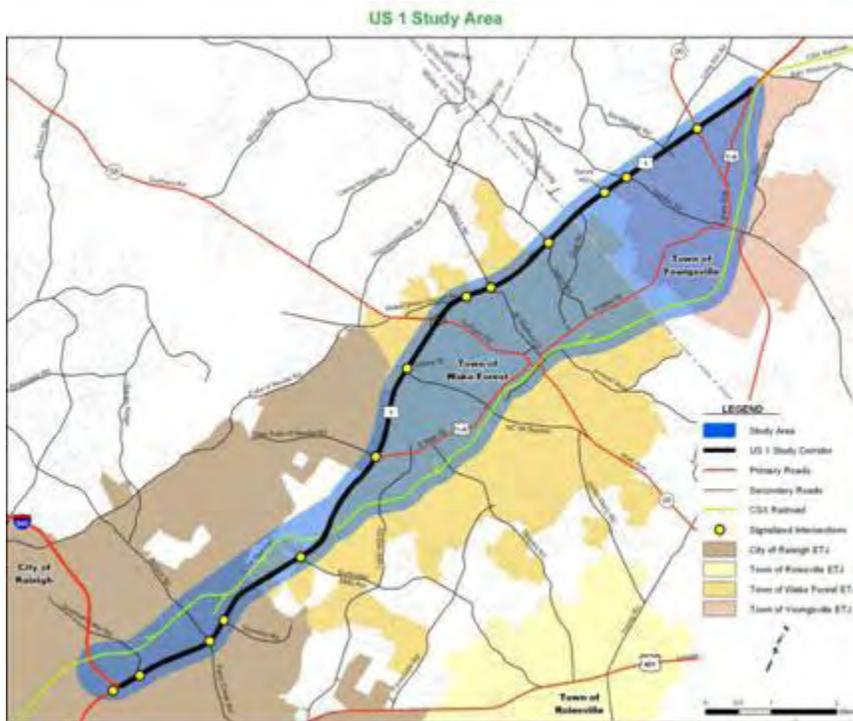
Policy RT-2: The Town should continue to anticipate and plan for the transformation of US 1 CAPITAL BOULEVARD into a LIMITED ACCESS FREEWAY and MULTI-MODAL TRANSPORTATION CORRIDOR as per the plans of the US 1 Corridor Study.

Excerpts condensed from the US 1 Corridor Study¹ website reveal the following:

Corridor Description

- The US 1 corridor runs between I-540 in Raleigh and the northern intersection of US 1/US 1A (North Main Street) in Franklin County, a length of approximately 14 miles (*see Study Area map*).
- US 1 accommodates interstate travel, linking Raleigh with I-85 to the north.
- US 1 connects downtown Raleigh with its northeastern suburban areas, including the Towns of Wake Forest and Youngsville, and

¹ <http://ncilt.org/doh/preconstruct/tpb/shc/studies/US1/Overview/>



TRANSPORTATION CORRIDOR as per the plans of the US 1 Corridor Study.

unincorporated Wake and Franklin Counties.

- This route will continue to become even more critical in providing regional connectivity via the eastern extension of I-540.
- This section of US 1 serves as a local circulation route for north-south travel within the study area because the secondary road system is not complete.
- Within the study area, US 1 is primarily a four-lane principal arterial with 13 signalized intersections and over 100 driveways connecting to its main travel lanes. This high-speed arterial roadway passes through areas of rapid commercial and residential suburban growth, which have primarily located around existing interchanges and signalized intersections. Rapid development is anticipated along the entire corridor, so it is important to evaluate access management policies and future land use plans for the area.
- The North Carolina Department of Transportation (NCDOT) has designated US 1 as a Strategic Highway Corridor.
- Travel demand meets or exceeds capacity for the section of US 1 south of US 1A (South Main Street) in Wake County. A high percentage of trucks (between 8 and 14%) adds to the congested travel conditions along this corridor.

- The crash rate for the study corridor exceeds the statewide average for over half of its length. The combination of high traffic volumes and high crash rates makes the US 1 corridor a good candidate for improvements.

Study Objectives



The US 1 Corridor Study¹ also sets forth the following objectives, excerpted from the Study website:

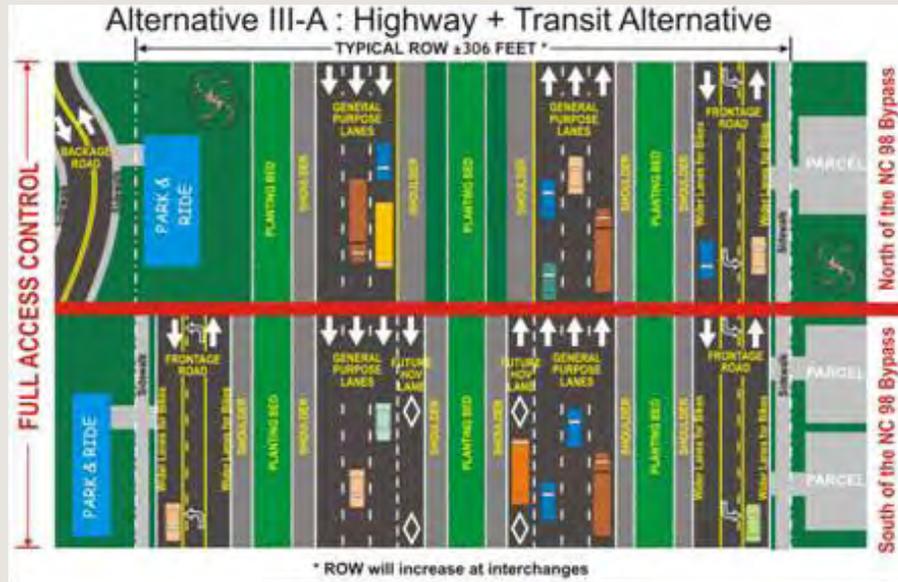
- To develop a clear vision of the transportation roles of the US 1 corridor with respect to mobility.
- To formulate a multimodal transportation plan that incorporates highway, transit, pedestrian, and bicycle travel modes and complements the area's current and future development patterns.
- To analyze the physical layout and number of general purpose and special-use travel lanes that are needed to serve the US 1 corridor travel demand in 2030. Right-of-way requirements for the proposed improvements will be evaluated and access management measures will be considered.
- To consider community character and potential impacts throughout the planning process.
- To determine changes in the access patterns within the US 1 corridor that could encourage better multimodal cohesion and connectivity in the study area and to reduce crashes along the corridor.
- To ensure a positive influence on the surrounding community, neighborhood input and community involvement will play a critical role in the public involvement program.
- The primary product of the study will be a coordinated multimodal transportation plan for the study corridor which addresses these objectives. The Capital Area MPO is managing the study through an interagency agreement between the City of Raleigh, NCDOT, the Town of Wake Forest, and the Triangle Transit Authority (TTA).

Preliminary Preferred Alternative

Three multimodal alternatives have been identified for improving the US 1 Corridor, all of which incorporate central freeway lanes along with various uses of frontage roads. The graphic image below depicts the preliminary preferred alternative (IIIA) as set forth in the current US 1 Corridor Study.

¹ <http://ncilt.org/doh/preconstruct/tpb/shc/studies/US1/Overview/>

Alternative IIIA - Highway + Transit Alternative Two-way Frontage or Backage Roads



Alternative IIIA generally involves the following improvements:

- Six general purpose lanes from I-540 to US 1A North in Franklin County (freeway standards)
- Space for either two special use/high-occupancy vehicle (HOV) lanes or two general purpose lanes, one in each direction from I-540 to the NC 98 Bypass
- Two-way, two-lane frontage roads with a center turn lane paralleling US 1 or backage roads set behind adjacent properties to provide access
- Interchanges at major cross streets
- Grade-separated cross streets to provide multi-modal east-west connectivity
- Bicycle lanes and sidewalks along frontage or backage roads and cross streets
- Park and ride lots and transit stops on frontage or backage roads

Policy RT-3: The Town strongly supports the recent establishment (and future expansion) of EXPRESS BUS SERVICE between downtown Wake Forest and downtown Raleigh with connections to the balance of the Research Triangle.

The following is a summation of information presented on the Triangle Transit Authority website regarding the recently established express bus service between downtown Wake Forest and downtown Raleigh. This service had been long sought after by Town officials; efforts to establish the service were spearheaded by Mayor Vivian Jones, with strong support from the Town Board of Commissioners.

Express Bus Service between Wake Forest and Raleigh

The Triangle Transit Authority worked cooperatively with the City of Raleigh and the Town of Wake Forest to implement an express bus service between Wake Forest and Raleigh. Service began July 7, 2008. A timed transfer between this route and a local circulator route within the Town of Wake Forest is provided throughout the day feeding a Park and Ride location in downtown Wake Forest. A timed transfer to CAT Route 1 is also offered throughout the day at Triangle Town Center.

Service Characteristics

- **Hours of operation:** M-F 5 am -8 pm excluding some holidays
- **Fare:** Free during the introductory period, then \$2.50 per one-way trip during peak periods (5-9 am, 4-8 pm), \$2.00 per one-way trip during the mid-day (9am-4pm).
- **Routing:** The express route serves Wake Forest, Triangle Town Center, and downtown Raleigh at peak commute times. During the mid-day, the route serves only Wake Forest and Triangle Town Center. Passengers who wish to continue to downtown Raleigh during the mid-day can transfer to CAT Route 1 at Triangle Town Center.

Bus Stop Locations

The express route has limited stops. Trips originate at the Park and Ride Lot at the corner of East Elm Avenue and South White Street in downtown Wake Forest, with stops at Triangle Town Center, the State Government Complex in Raleigh, and Moore Square Transit Station.

Summary of Policies for Regional Transportation

Policy RT-1: The Town should continue to anticipate and plan for the impacts of new HIGH SPEED RAIL SERVICE as it passes through Wake Forest en route to major urban centers north and south along the east coast.

Policy RT-2: The Town should continue to anticipate and plan for the transformation of US 1 CAPITAL BOULEVARD into a LIMITED ACCESS FREEWAY and MULTI-MODAL TRANSPORTATION CORRIDOR as per the plans of the US 1 Corridor Study.

Policy RT-3: The Town strongly supports the recent establishment (and future expansion) of EXPRESS BUS SERVICE between downtown Wake Forest and downtown Raleigh with connections to the balance of the Research Triangle.

Policies for Water and Sewer Services

History of Water and Sewer Services Locally

The Town of Wake Forest, along with five other small towns in Wake County, began buying water from the City of Raleigh in the 1980s. In 2003, the City of Raleigh notified these communities, including the Town of Wake Forest, that it would no longer sell water to the towns, unless the municipal systems were merged with the City of Raleigh system.

Faced with this new policy, the Town of Wake Forest initially looked into the cost of finding and using an alternative water supply. A preliminary engineering report commissioned by the Town revealed that it would cost an estimated \$34 million to expand the Town's water supply employing the reclassified Richland Creek watershed. As the Town could not afford the necessary capital costs, Wake Forest agreed to merge its water and sewer systems with Raleigh's.

As part of the merger agreement, the City required that Wake Forest and the other small towns involved make improvements to their utilities before Raleigh would accept the facilities into a larger regional system. In Wake Forest's case, an estimated \$20 million in improvements would be paid for by the Town's higher water rates and fee structure. These improvements are underway at present. Current projections are that the Town's debt for system improvements will be paid off no later than 2012, perhaps sooner. At that time, the lower water consumption, sewage treatment and facility fee rates of the City of Raleigh will replace those of the Town of Wake Forest.

Water and Sewer System Capacities

Potable Water Supply. The City of Raleigh has allotted the Town of Wake Forest water supply capacity to meet growth demands of the Town through 2010. Given the much slower growth and development of the past two years, this allotment would theoretically last well beyond the projected target date. A bigger question is whether the regional water supply system can live up to the terms of the allotment. The continuing drought of the past two years has called into question whether there are sufficient water supply resources within the entire region to meet current, and especially future, water demand. The Triangle region has begun to realize that water can no longer be viewed as an infinite resource; rather it is a finite commodity that must be carefully managed.

Wastewater Treatment. Wastewater treatment capacity is not currently an issue regarding growth and development in the area. Wake Forest's treatment plant, located off Ligon Mill Road south of town, is currently a

3.5 million gallon per day plant, with permitting authority to increase to 6 million gallons per day when needed. Costs to upgrade the wastewater treatment plant alone (prior to merger with Raleigh) were originally estimated at about \$15 million. Actual costs to date have proven to be less than as projected. Though the merger of the Town's wastewater treatment plant into the Raleigh system is not yet officially complete, the City of Raleigh has already begun operating the facility.

Utilities and Plan Review

From the standpoint of plan review, the merger of Wake Forest's utility systems with those of the City of Raleigh became effective on July 1, 2005. Since that date, all master, construction, and final plats have been reviewed by the City of Raleigh in addition to the Town of Wake Forest with regard to City utility standards. This has added a few requirements that had not been in place previously. For example, the City of Raleigh does not permit the sharing of utility corridors as did the Town. Further, under the City's standards, all utility system elements must be located within a public right of way.

Water and Sewer Services and the Community Plan

It is a generally accepted planning principle that the provision of infrastructure, particularly centralized water and sewer services, is a major determinant in the density, timing and location of new development in an urbanizing area. In fact, the "big three" infrastructure improvements of *water, sewer, and roads* normally have a much greater influence over growth and development than the regulatory authority imposed by a zoning ordinance and/or subdivision regulations. Oftentimes, the extension of water and sewer services outward from an existing town or community can be the definitive action in predicting where the next wave of development is going to occur. As such, water and sewer service extensions can be quite effective as a growth management tool of small communities like Wake Forest.

The Town of Wake Forest is fortunate to have had ownership and control of its own water and sewer utilities during the formative years of the Town's rapid growth. Such control allowed the Town to employ its utilities to achieve multiple objectives, including a large measure of control over its growth and development as a community.

In some respects, the merger of Wake Forest's water and sewer system with the City of Raleigh's is a shift away from a locally controlled water and sewer system, which was heretofore fully integrated with other government services. With the merger, the system has moved toward toward a regional water and sewer entity, functioning more like an independent business. It

is hoped that this new joint responsibility for managing water and sewer services within the Town of Wake Forest will continue to positively influence development patterns within the Town's planning jurisdiction and, ultimately, the capability of the Town to provide other municipal services to newly developing areas on a cost effective basis.

Water and Sewer and the Growth Strategy Map

The *Growth Strategy Map*, discussed elsewhere in this Plan, identifies areas within the Town's planning jurisdiction where development is to be encouraged, as well as other areas where development should not occur—where natural and cultural resources should be conserved. The Chapter also includes recommendations for employing water and sewer services, as well as other infrastructure, as an important growth management tool in support of the *Community Plan*.

Summary of Policies for Water and Sewer Services

Policy WS-1: The Town shall work proactively with other local governments, utility service providers and the State of North Carolina on REGIONAL, LONG TERM SOLUTIONS FOR WATER SUPPLIES AND SEWAGE TREATMENT.

Policy WS-2: Recognizing that water and sewer services have a POWERFUL INFLUENCE ON GROWTH AND DEVELOPMENT, the Town of Wake Forest shall require that consideration be given to the placement of these utilities relative to desired growth patterns.

Policy WS-3: Centralized sewer services shall generally avoid parts of the Town best suited for open space and to PROTECT ENVIRONMENTALLY SENSITIVE AREAS FROM DEVELOPMENT PRESSURES brought about by such sewers.

Policy WS-4: The Town shall encourage the development of sewer services that employ WATER REUSE TECHNOLOGIES for appropriate forms of open space, golf courses and other uses.

Policies for Water Conservation

Note: With the merger of water and sewer systems in Wake Forest, Rolesville, Garner, Knightdale, Wendell and Zebulon into Raleigh's water system, these local governments must abide by the City's rulings concerning water conservation. The towns may not set stricter conservation measures than Raleigh.

Recent Draught History

2007 was the driest year in state history; the drought continued into 2008. During the fall of 2007, Raleigh's (and Wake Forest's) water supply fell to less than 100 days, when its source — Falls Lake — dropped well below normal capacity. Spring rains in 2008 replenished the supply but other, more recent, stretches of dry, hot weather have demonstrated how quickly drought conditions can return. As a result of these unprecedented circumstances, the Town Board of Commissioners acted to adopt the above water conservation policies. The policies reflect the level of concern that the Town of Wake Forest continues to experience with on-going state-wide drought conditions.

In late May 2008, the City of Raleigh relaxed its water use restrictions without consulting with area towns tied into the system. The Mayor of Wake Forest sent an e-mail questioning whether the water use restrictions had been loosened prematurely, given persistent low groundwater levels in the region. An unusual heat wave struck the state in June 2008 with temperatures in the Triangle area reaching over 100 degrees for several days. Despite some helpful spring rains, recent less optimistic forecasts



concerning near term water supplies seem to have substantiated these concerns.

Summary of Policies for Water Conservation

Policy WC-1: It is the policy of the Town of Wake Forest to CONSERVE TO THE FULLEST EXTENT POSSIBLE POTABLE WATER AND WASTE WATER TREATMENT CAPACITY, which capacity is provided by the City of Raleigh through an inter-local agreement.

Policy WC-2: The use of the municipal potable water distribution system for lawn and PLANT IRRIGATION IS PROHIBITED FOR NEW DEVELOPMENT of all types. New developments should employ other types of non-municipal water supplies such as wells, rainwater catching systems (e.g. rain barrels or in-ground cisterns) or, when it becomes available, reuse water.

Policy WC-3: CURRENT PROPERTY OWNERS AND RESIDENTS are encouraged to ELIMINATE OR REDUCE USAGE OF THE MUNICIPAL WATER SUPPLY FOR OUTSIDE IRRIGATION. Use of drip irrigation, timed systems and in-ground pressurized systems is encouraged over the use of standard sprinkler systems. Use of rainwater catching systems such as rain barrels or in-ground cisterns is encouraged.

Policy WC-4: All developers are encouraged to plant DROUGHT TOLERANT GRASSES on all new lawn areas. Examples of such grasses include: Bermuda, Centipede, St. Augustine and Zoysia. Planting of Fescue and Perennial Rye grasses is strongly discouraged. Current property owners and residents are encouraged to reseed lawns with drought tolerant grasses.

Policy WC-5: Construction of NATURAL RAINWATER RETAINAGE SYSTEMS IS ENCOURAGED. Such systems should include but not be limited to rain gardens, bioretention areas and green roofs.

Policy WC-6: Use of TRADITIONAL PLANTS NATIVE TO THE AREA is encouraged for landscaping for all new and existing development.

Policy WC-7: The Board encourages the installation of WATER SAVING DEVICES in new and existing homes and offices. Such water saving devices shall include but not be limited to: tankless, on-demand hot water heaters; low-flow shower heads; high efficiency clothes washing machines and dish washers; and, high-efficiency toilets.

Policies for Community-Oriented Schools



Schools and Their Influence on Growth

When considering infrastructure that influences growth, most people think about “horizontal infrastructure”, especially roads and water and sewer lines. Yet schools, sometimes referred to as part of a community’s “vertical infrastructure”, have been shown to be just as important in influencing growth as pipes in the ground or pavement on the street. Schools, therefore, are an important consideration in planning for infrastructure and growth patterns in the town of Wake Forest.

Research has shown that the tendency to build new schools on large sites far removed from existing urban centers, called “school sprawl” or “school giantism” can have far-reaching impacts on school children, school districts and the larger community. Following are two excerpts from research sponsored by the Charles Stewart Mott Foundation that explains this greater detail:^{*1}

“Educators and parents express concern that large schools reduce educational outcomes, particularly for at-risk youth. Schools that are more distant can diminish student participation in extra-curricular activities, parental involvement and taxpayer support. Students are walking and cycling to school less, which contributes to alarming rates of childhood obesity. Many suggest that the growing physical disconnect between schools and community helps create a level of student anonymity and social alienation that sets the stage for tragic events like Columbine.

Smart growth groups, which traditionally have not weighed in on educational matters, are now questioning the same trend. Rather than build shopping mall schools at the edge of town, smart growth advocates encourage the continued use of existing schools and the construction of new schools on infill sites within existing neighborhoods.

Smart growth advocates’ interest in neighborhood schools dovetails with education reformers’ interest in small schools, presenting an important opportunity for collaboration. Scattered efforts are underway across the country addressing the shared interests of educators and smart growth advocates. Much remains to be done, and funders and leaders from all sectors have an important role to play.” (from the abstract)

¹ “Education and Smart Growth: Reversing School Sprawl for Better Schools and Communities”, Sam Passmore, the Charles Stewart Mott Foundation, published by the Funders’ Network For Smart Growth and Livable Communities.

“... a new school on a distant site can act as a growth magnet, helping draw people out of older urban neighborhoods and into new subdivisions on the metropolitan fringe. It is well understood that school quality determines where many families will choose to locate within a region. If new schools are being built on the edge of town and they are perceived to be superior, as new schools often are, then families who can afford the move will often relocate. Similarly, under performing schools in older neighborhoods can push families to leave. Even families without school age children are impacted as school quality has a significant influence on residential property values. Thus, school quality can influence population shifts within a region from the urban core to the periphery, precisely the pattern of urban disinvestment and suburban expansion that troubles smart growth advocates most.” (page 3)

Thus, in much the same way that a new sewer line can have a major influence on the location of growth in a community, so too can school location decisions made by the School Board. The location of new schools plays a major part in the decisions of developers and homebuyers as to where to build their homes. Depending on their design and location, new schools can either be the cornerstone of a healthy, close-knit neighborhood or they can simply be another engine of sprawl. This plan recommends that decisions about new school location and design take into consideration this broader perspective of schools as instruments for building better communities, rather than simply as isolated, educational “processing plants” for children.

There is also the issue of diversity in schools. Desegregation initiatives, first undertaken in the 1960s, have typically required the bussing of children on a massive scale from inner city neighborhoods to suburban schools (and vice versa). In addition to student time wasted on busses and the substantial operator and fuel costs required, schools distant from the neighborhoods feeding them become *disconnected institutions* rather than *community and neighborhood assets*. With proper planning, community schools can also have diversified student populations. Rather than bussing children, a better alternative is to create a diversity of housing types and costs within walking and biking distance of community oriented schools.

It is well known that housing values in any given neighborhood carefully parallel economic and household income levels of the residents who live there. Rather than bussing children to achieve economic diversity, this plan advocates the creation of community schools serving diverse neighborhoods nearby. It is incumbent upon public decision makers and private development interests to work cooperatively to effectuate such diversity.

Summary of Policies for Community-Oriented Schools

Policy S-1: ADVANCED PLANNING FOR THE LOCATION OF NEW PUBLIC SCHOOLS serving Wake Forest should be a joint effort between the Wake County School Board and the Town. School locations should serve to reinforce desirable growth patterns rather than promoting sprawl. New elementary school locations should be viewed as a CORNERSTONE OF THE NEIGHBORHOODS they are intended to serve.

Policy S-2: OFFERS OF LAND FOR THE SITING OF NEW SCHOOLS shall be encouraged, particularly in conjunction with related neighborhood development. Acceptance of such properties shall be based on approved location and design criteria.

Policy S-3: School campuses shall be designed to allow safe, PEDESTRIAN ACCESS FROM ADJACENT NEIGHBORHOODS. Transportation facilities within 1.5 miles of all public schools shall be a priority for construction of sidewalks, bike paths and pedestrian trails.

Policy S-4: Site planning for TRAFFIC MANAGEMENT AND SAFETY in the vicinity of public schools shall be a priority.

Policy S-5: The CO-LOCATION AND JOINT DEVELOPMENT of school facilities in conjunction with other community facilities and services shall be encouraged. This policy shall be especially applicable to schools co-located with park and recreation facilities.

Policy S-6: COSTS FOR NEW SCHOOLS, including site acquisition and construction costs, shall be borne largely by the new growth and development creating the demand. Methods for assigning these costs may include land dedication, fees in lieu of land dedication, and school impact fees, among others. Trade-offs may include density bonuses, density transfers, and infrastructure partnerships, among others.

Policy S-7: The Town shall seek to foster diversity in community-oriented public schools by encouraging DIVERSITY IN THE NEARBY NEIGHBORHOODS FEEDING EACH SCHOOL. Planning and zoning should be employed to encourage a variety of housing types and levels of affordability within largely walkable/bikeable community school service areas.

Paying for Growth

Summary of the Issues

According to the most recent population estimates of the US Census Bureau, Wake County has been among the 10 fastest growing counties in the nation during the current decade. In 2007, some 833,000 people lived in Wake County or 205,000 more than in 2000. Based on these numbers, about 106 new people moved into Wake County every day during the first seven years of the 21st century.¹

At the same time, northern Wake County, including the Town of Wake Forest, is receiving a significant portion of the new growth. Setting aside the effects of the recent national housing “crisis”, the past fifteen years have seen Wake Forest emerge as a major growth area in Wake County. While much of this growth has come from people who work in Raleigh but prefer to live in a small town, Town officials have stated that this bedroom community effect has diminished in recent years.

Regardless of the source of population growth in Wake Forest, there is little debate that most new development in the town may be attributed to residential construction. While this growth provides jobs in the building industry (especially during periods of rapid growth), and an increase in the residential tax base for the Town, the actual revenues generated in excess of costs of such growth are debatable. Specifically, studies have found that most residential development does not pay for itself in terms of the services it requires versus the taxes it generates. One study by the American Farmland Trust found for example that, on average, residential



¹ Wake County Planning Department, April 2008.

development requires about \$1.15 to \$1.25 in services for every \$1 it pays in taxes. (The study reported that farmland, in contrast, requires only about 30 cents in service demands for every \$1 it pays in taxes.)

Commercial and industrial properties, on the other hand, reportedly require less in the way of services and therefore carry more than their burden of local government operating costs. (The previously referenced study by the American Farmland Trust found that for every dollar paid in taxes, commercial development requires only about 35 cents back in service costs.) Thus, while a \$1 million investment in housing and a \$1 million investment in commercial property may generate the same property tax revenues, the commercial property has no children to educate or enroll in recreation programs, no domestic disputes to be resolved, and few local public streets that need to be paved and maintained. Commercial and industrial developments generally provide for a favorable cost/benefit analysis to the Town's balance sheet, while residential development, particularly lowered priced housing, may not.¹

Many of the upfront costs for new services and infrastructure must be paid for before the new residents have contributed a significant amount of local property taxes. In the case of lower priced housing, such developments may never generate sufficient taxes to pay for the services demanded, much less the upfront capital improvement costs required. Communities, therefore, face difficulty financing immediate start-up costs for capital improvements through existing general revenues. In addition, existing residents may end up paying for capital facilities through their property taxes that largely benefit the new residents. This capital financing problem is worsened by the decreasing availability of Federal and State funds.

Rapidly growing communities like the Town of Wake Forest have primarily four basic alternatives to deal with the upfront costs of residential growth:

1. Allow the quality of services to deteriorate by not matching new facilities and services with growth
2. Expand the non-residential tax base of the community.
3. Use revenue sources tied more directly to the growth.
4. Increase the general property tax rate to generate the balance of funds needed,

¹ Some studies have suggested that relatively high end housing can in fact, pay its own way from the standpoint of revenues generated versus service costs incurred by local government. In addition to the property taxes generated, the occupants of high end housing have larger disposable incomes on average, thereby increasing the likelihood of greater spending and greater sales tax revenues. Ten years ago, the break-even high end home value number was estimated at somewhat over \$300,000. Today, it would be much higher, perhaps twice that number, given today's inflated real estate values, property tax rates and changes in the consumer price index.

Town leaders have determined that alternative (1) allowing the quality of services to deteriorate is not acceptable. The Town must therefore use largely a combination of alternatives (2), (3) and (4) to fund facility and service expansions. Option (2), expanding the non-residential tax base is discussed more fully under the chapter of this plan entitled Economic Development. The balance of this chapter will focus on alternative (3) the specific revenue generating mechanisms employed by the Town of Wake Forest that are tied more directly with growth.

Wake Forest Facility and Service Recovery Fees

In a general sense, new residents create demand for housing that, in turn, generates a demand for infrastructure and services. While some of the costs of such infrastructure are paid by the developer, (and then the home-buyer), capital improvement costs not covered by the developer must be absorbed by the existing taxpayers in the town. In an attempt to hold down general tax increases, the Town has instituted an array of fee mechanisms that it employs to recover some of the costs of infrastructure and service demands created by new development. Among them are:

Recreation Facility Fees

The Town began collecting recreation facility impact fees on new residential developments starting in 1998. The current fee structure requires a payment of \$1086 for each single family detached home, and \$945 for each single family attached or multi-family unit.¹ Of note, these amounts are estimated to be only 40% of the true impact and cost of new homes and their residents on the park and recreation facilities of the Town.² Impact fees paid by the developer/builder are deposited into a special trust fund set up by the Town specifically for parks, open space and recreation.

Water and Sewer Availability Fees

The Town of Wake Forest collects water and sewer availability fees from both residential and non-residential development. The Town does not keep the money from either type of development, however. As part of the Town's utility system merger agreement with the City of Raleigh, the Town turns all fees collected over to Raleigh. These monies are then earmarked for use in upgrading local water and sewer facilities.

¹ Statistics generally bear out that single family detached homes normally have larger household sizes, thereby creating slightly more demand for parks and recreation than apartments, townhouses, and condos.

² Interview with Wake Forest Parks and Recreation Director Susan Simpson, March 22, 2008.

Residential Water and Sewer Availability Fees

Residential water and sewer availability fees vary according to the size of the structure being served and an estimate of the likely daily water used in gallons per day (gpd). The fees below have been rounded to the closest dollar.

Type of Housing Unit	Water Use (gpd)	Water Fee	Sewer Fee
Two bedroom	119	\$960	\$656
Three bedroom	168	\$1356	\$926
Four bedroom	279	\$2252	\$1537
> Four bedroom	279 + 60/bdrm	\$2736	\$1868
Mobile Home	228	\$1840	\$1256
One bedroom apt	84	\$678	\$463
Two bedroom apt	125	\$1009	\$689
Three bedroom apt	166	\$1340	\$915

Thus, using a three-bedroom house as an example, the Town currently charges a \$1,356 water fee and a \$926 sewer fee for a total water/sewer availability fee of \$2,282 for a three-bedroom house.

Non-Residential Water And Sewer Availability Fees

Water and sewer facility fees for non-residential properties are based upon an estimated volume of water flow in gallons per day (gpd) for various types of uses. The estimated daily water use is then multiplied by \$8.07 per gallon to calculate the water fee and \$5.51 to calculate the sewer fee. Examples are provided as follows:

Example of a Type of Use	Water Use (gpd)	X \$8.07 Water Fee	X \$5.51 Sewer Fee
Hotel, 100 rooms	50 per room	\$40,350	\$27,550
Nursing Home, 100 beds	65 per bed	\$52,500	\$35,815
School, 600 students	15 per student	\$72,630	\$49,590
Office, 10,000 Sq Ft	16 per 400 sq ft	\$3,228	\$2,204
Restaurant, 50 seats	14 per seat	\$5,649	\$3,857
Retail, 10,000 Sq Ft	40 per 1000 sq ft	\$3,228	\$2,204
Car Wash, 4 Bays	445 per bay	\$14,365	\$9808
Industry, 50 Employees	166	\$1340	\$915

Fire Protection Impact Fees

A fire protection fee was established effective January of 2008. Under the fee schedule, a new single family detached home pays \$592 while a new multi-family unit pays \$481. Fees for non-residential properties can be quite substantial. New industrial buildings pay \$389 per thousand square feet, while commercial and office buildings pay \$649 per thousand square feet. Thus, a new 100,000 square foot shopping center would pay a fire protection facility fee of \$64,900.

Development Exactions

Major new developments are required to have a traffic impact analysis prepared as part of the Town's development approval process. Depending on what the analysis shows or the Transportation Plan calls for, the developer may be required to dedicate right of way and build a road, add lanes to the affected road(s), improve nearby intersections, provided for enhanced signalization, add turning lanes, extend water and sewer lines, build sidewalks, etc. While justified by the types of impacts created, such exactions can be quite costly; in fact more costly than most other forms of facility recovery fees discussed in this chapter.

Development Permit Fees

The Town collects a variety of development permit fees intended to recover the cost of reviewing plans and conducting on-site inspections. Some of the more common fees include, for example:

► Residential General Permit Fees

NEW RESIDENTIAL DWELLINGS— \$389 for up to 1200 sq ft plus \$.25 per sq ft over 1200 sq ft

RESIDENTIAL ADDITIONS —\$240 for up to 400 sq ft, \$389 for 400-1200 sq ft and \$389 up to 1200 sq ft plus \$.25 per sq ft over 1200

MULTI-FAMILY DWELLINGS pay \$389 for each unit

TRADE INSPECTIONS COST \$60 per trade (building, electrical, mechanical and plumbing)

► Non-Residential General Permit Fees

Fees are charged per trade (building, electrical, plumbing HVAC) based on the cost of the structure. Fees range from \$120 per trade for a structure costing \$700 or less up to \$7,640 for a structure costing up to \$1 million. Fees for structures costing over \$1 million increase incrementally by a small percentage.

► Fire Plan Review Fees

Fees are charged based on the size of the structure. Fees range from



\$110 for a structure of 2,500 sq ft or less up to \$2,175 for a structure of 500,000 sq ft or greater.

► **Commercial Plan Review Fees** (*proposed*)

Commercial plan review fees are charged based on the size of the structure. Fees range from \$150 for projects less than 15,000 sq ft. up to \$1200 for projects over 40,000 sq ft. Apartment projects are charged a flat review rate of \$750.

► **Water Meter and Electric Fees**

Water meter installation costs \$178 for a ¾ inch line (typical residential size) and \$1,400 for a 2 inch line.

Underground electric lines (residential only) cost \$225 for the first 150 feet of line plus \$3 per foot over 150 feet.

► **Water and Sewer Nutrient Fees**

Water and sewer nutrient fees vary according to the type of structure and size of pipe connection:

Type of Construction	Water	Sewer
Residential—individual water & sewer service	\$100 per dwelling	\$366 / dwelling up to 4 inch
Residential—group housing on single water & sewer service	\$100 per dwelling	\$244 per dwelling
Non-residential— all water service sizes	\$100 per connection	
Non-residential— all 0-4 inch sewer service		\$366 per connection
Non-residential— all 6 inch sewer service		\$858 per connection
Non-residential— all 8 inch sewer service		\$2016 per connection

Other Effects of Facility and Service Recovery Fees

The primary purpose of all of the Town fees listed above is to reduce the burden on current residents and property owners concerning the costs of providing infrastructure and services necessitated by new growth and

development.¹ To the extent possible, such fees are intended to make development help pay its own way. Beyond the public finance issues surrounding such fees, however, they have two other effects.

(1) Facility and service recovery fees place new housing on a more equal, “*true cost of development*” footing compared to existing homes in the area. This means that the developer and thus the potential homebuyer must factor in the up front infrastructure costs in the price of a new home, compared to an existing home that already has infrastructure in place. In the largest sense, recovery fees can have the effect of encouraging the restoration/slowing the abandonment of the older housing stock in the town.

(2) Facility and service recovery fees may have the effect of placing new housing in one community on a more level, “*true cost of development*” playing field relative to new housing in adjoining governmental jurisdictions. This means that the developer and thus the potential homebuyer must factor in the true costs of doing business in one community over another.

Capital Improvement Planning

In the context of local government, “capital improvements” may be defined as *major, non-recurring expenditures related to the purchase or construction of a permanent or relatively long lasting asset*. Capital improvements may include, for example, land acquisition, construction or major rehabilitation of a building or other facility, the purchase of major equipment, or any planning, feasibility, engineering or design study related to a major capital project.

Given the range of capital improvement needs and expenses that the Town will face in the next few years, this plan suggests that a long and short range capital improvement plan be introduced as a routine part of the annual budget setting process for the Town. This plan should include a needs assessment and long range plan for such things as street and sidewalk construction, park and greenway facilities, fire stations and other buildings, vehicle and major equipment purchases, stormwater management infrastructure, streetscape improvements, and the like. Cost estimates and sources of funding should be summarized in the plan for the approximate year(s) in which expenditures are anticipated.



¹ For a comprehensive review of a variety of potential funding sources that could be employed to help pay for the costs of growth, the reader is directed to the **Wake County Growth Management Strategy**, (2003), and specifically Chapter 7, Paying for Growth.

Summary of Policies on Paying for Growth

Policy PFG-1: The costs of infrastructure, facilities and services related to new growth and development should be borne primarily by those CREATING THE DEMAND. This approach should include cost recovery fees that are rationally related to the new growth.

Policy PFG-2: The Town should continually seek to balance residential and non-residential development to foster a favorable SERVICE-COST TO REVENUE-GENERATED TAX BASE.

Policy PFG-3: Fees charged by the Town for DEVELOPMENT REVIEWS AND INSPECTIONS should approximate the actual costs to the Town of conducting such work.

Policy PFG-4: Cost recovery fees may be instrumental in establishing “TRUE DEVELOPMENT COSTS” for new greenfield development, thereby leveling the playing field for rehabilitation and enhancement of existing older homes and businesses.

Policy PFG-5: The Town should undertake ANNUAL PLANNING AND BUDGETING FOR CAPITAL FACILITIES, with particular emphasis on street and sidewalk construction, park and greenway facilities, fire stations and other buildings, vehicle and major equipment purchases, stormwater management infrastructure, and streetscape improvements.



A Healthy, Sustainable Environment

Summary of the Issues

The past few years have witnessed the reawakening of an environmental ethic not seen in nearly forty years. In the early 1970s, environmental issues rose to the forefront of public concerns, giving rise to the National Environmental Policy Act of 1970, the Federal Clean Air Act of 1970, the Federal Clean Water Act of 1972 and many other federal and state legislative initiatives. These federal initiatives reflected well the mood of the country. Not long after that, the Arab oil embargo of 1973-74 triggered gasoline shortages and a run-up in fuel prices—making energy consumption a major concern and introducing a wave of smaller, more fuel efficient, mostly foreign made automobiles. Solar energy and wind power also entered mainstream vocabulary for the first time.

Then came the “Me! Me! Me! Decade of the 1980s” and the “Roaring Economy of the 1990s”.¹ The environment largely slipped out of the public’s view. The terrorist events of September 11, 2001 continued America’s pre-occupation with issues other than the environment. Finally, by mid-decade environmental concerns re-entered the public’s conscience. Former Vice

¹ Kingwood College Library, AMERICAN CULTURAL HISTORY 1980-1989 and 1990-1999.

For the current American way of life is founded not just on motor transportation but on the religion of the motorcar, and the sacrifices that people are prepared to make for this religion stand outside the realm of rational criticism.

Lewis Mumford, 1958

In the creation of healthy environment nature's collaboration is not only important, but also indispensable.

Elieel Saarinen

President Al Gore's much debated film, "An Inconvenient Truth" (2006) brought attention and has generated considerable discussion about the causes of global warming.

Today, environmental concerns are back on the radar screen, and have shifted and matured, mainly due to the sheer magnitude of economic activity and the volume of energy consumption. As a culture, we are more dependent on the automobile than ever—to the point that air quality problems from tail-pipe pollution are often greater than problems from smokestack pollution. Similarly, water pollution concerns have transitioned from concentrated point sources of pollution (i.e. industrial and municipal waste treatment sources) to dispersed, non-point sources (i.e. urban and agricultural stormwater runoff).

At the same time, several new "ecologically friendly" terms have entered the land planning and development vocabulary, including:

green building—the practice of increasing the efficiency with which buildings use resources (energy, water, and materials) — while reducing building impacts on human health and the environment, through better siting, design, construction, operation, maintenance, and removal — the complete building life cycle.

green infrastructure—the use of plant materials and natural systems to collect, retain, absorb, and restore valuable rainwater to nature's water cycle. Examples of green infrastructure include grassed swales, rain gardens, bio-retention strips, permeable pavements, trees, and wetlands to capture and absorb rainwater. Green infrastructure contrasts with gray infrastructure which seeks to collect, pipe, and dump rainwater as a nuisance.

LEED Certification—stands for Leadership in Energy and Environmental Design, a Green Building Rating System that provides a suite of standards for environmentally sustainable construction.

low impact development (LID)—site design approaches and small-scale stormwater management practices intended to reduce runoff and associated pollutants from the site at which they are generated.

sustainable development—development that can function properly indefinitely. It meets the needs of the present generation without endangering the welfare of future generations.

This chapter seeks to gather in one place many of the environmental policies that the Town of Wake Forest can implement, or is already implementing, as it goes about the business of managing growth. In reality, these policies will be found as a pervasive element embedded in many

other policies of this plan. They can be seen, for example, in the plan's policies on walkable neighborhoods, complete streets, mixed use developments, tree planting and preservation, landscaped parking areas, open space and greenways and many others. Because of the numerous policy areas they relate to, this environmental chapter has more policy statements than average. For the sake of organization, these environmental policies are grouped under the following sub-categories:

- Walking and Transit Oriented Development
- Water Quality and Low Impact Development
- Sustainable, Green Building Practices
- Community-Wide Recycling

Policies for a Healthy, Sustainable Environment

Walking and Transit Oriented Development

Policy HSE-1: Development policies should work to make Wake Forest more WALKABLE AND PEDESTRIAN-FRIENDLY, and less dependent on the single-occupant automobile.

Policy HSE-2: Compact, transit oriented MIXED USE DEVELOPMENTS should be encouraged so as to facilitate walking, biking and transit options.

Policy HSE-3: New, HIGHER DENSITY RESIDENTIAL DEVELOPMENT should be located within walking distance of jobs and services and designed to be compatible with current and future transit services.

The three policies set forth above emphasize that it is the layout and development density of a community that makes pedestrian activity more likely. It is the pattern and proximity of residential, commercial and recreational uses that favors pedestrian movement over reliance on the automobile. It is the fine-grained pattern of complementary land uses that decreases commuting time and travel distances—thereby reducing the carbon footprints of individuals and energy consumption overall. Sidewalks can be provided, but if they do not connect destinations within walking distance, then there is no incentive to make use of them. At the same time, these policies recognize that transit services must be able to serve clusters of population density to make transit economically viable.



We cannot avoid stream pollution by keeping everyone out of the watershed, for all land is watershed and there is no place else to live and work.

*Marion Clawson, **America's Land and Its Uses**, 1972*

Of note, July 7, 2008, marked the start of the first scheduled mass transportation service in Wake Forest since the days of the railroad. The new service provides for bus transportation three times daily between Wake Forest and downtown Raleigh. Departing from a park and ride lot at the corner of East Elm Avenue and South White Street in Wake Forest, buses deliver passengers to three stops in Raleigh: Triangle Town Center, the Government Complex, and the Moore Square Transit Station downtown.

To feed the commuter service and provide for in-town mobility, a local circuit bus loops continuously through Wake Forest beginning at 5:30 am, delivering commuters to the park and ride lot. The new service was made possible through the cooperative efforts of Raleigh's Capital Area Transit (CAT), the Town of Wake Forest, and the Triangle Transit Authority.

In light of rapidly rising energy costs, interest in public transit is very likely to continue to increase. Some observers have noted that the generally suburban pattern and density of development that has predominated in the United States since the 1950s is beginning to lose momentum. As Wake Forest continues to grow, each new development offers an opportunity to plan ahead for public or private transit services. Clusters of compact housing, mixed use development, and the provision of logical gathering points for future transit stops should be a consideration when reviewing and approving development proposals. Wake Forest should be built for the sustainable, long haul.

Water Quality and Low Impact Development

Policy HSE-4: The environmental benefits of LOW IMPACT DEVELOPMENT, emphasizing on-site stormwater retention, infiltration and/or slow release, shall be recognized and facilitated.

Policy HSE-5: RUNOFF AND DRAINAGE from development shall be of a quality and quantity as near to natural conditions as possible.

Policy HSE-6: VEGETATED RIPARIAN BUFFERS (natural or planted) shall be required along all creeks, rivers, lakes and other water bodies in Wake Forest.

Low impact development has as its primary objective the maintenance and improvement of hydrologic conditions on any development site, leading to better overall water quality in the watershed and its streams. Through its development controls, the Town of Wake Forest has the conduit through which significant environmental benefits can be achieved.

The actions of individual homeowners can also have major positive impacts through the installation of rain barrels and runoff absorbing rain gardens. Of course, rain barrels have the added benefit of relieving drought conditions. Rain gardens replenish the groundwater table, a major source of water for area lakes during drought conditions. Finally, a policy requiring riparian buffers along area streams is consistent with the Town's current standards, and is one that warrants strong support.

Note: Some aspects of low impact development may not be equally applicable in the downtown area. Special considerations and exemptions may be necessary. A special plan for stormwater management may need to be developed specifically for the downtown.

Policy HSE-7: CONSERVATION SUBDIVISIONS should be encouraged where site conditions call for minimizing environmental disturbance and protect adjoining natural resources. Streets and properties in such subdivisions may employ GRASSED SWALES OR OTHER METHODS to capture stormwater runoff, filter out pollutants and recharge groundwater resources.

In general, this plan calls for neighborhood designs that foster compact growth and the retention of meaningful open space on surrounding non-urban lands. There are circumstances, however, when development occurs on lands adjoining sensitive environmental resources. In such instances, a "conservation subdivision", a specific form of low impact development, may be called for. Conservation subdivisions typically work to mitigate against environmental disturbances and natural resource degradation by minimizing land clearing, tree removal, and reducing stormwater runoff.

Methods of reducing stormwater runoff include, principally, the minimization of impervious surface areas (roofs, driveways, sidewalks, patios and other paved areas), the retention of natural ground covers and vegetation, and capturing and holding stormwater runoff on site. One of the most effective and economical ways of reducing stormwater runoff is to create grassed swales to capture runoff, filter out stormwater pollutants, and allow for percolation of the rainwater into the ground. Grassed swales differ from drainage ditches in that their gently curving cross section make them more attractive and increase the grassed surface area over which the stormwater must pass. Further, vegetated roadside drainage swales should be approved in place of curb and gutter where true urban level development is not desired.

**Kyoto,
Mountain green,
And water clean.**

Rai Sanyo



Policy HSE-8: LARGE PARKING LOTS shall have landscaped planting islands and perimeter buffer strips and may use other design technologies to intercept and absorb runoff. Parking requirements shall be carefully gauged by land use so as not to create excessive paved surface areas.

Beyond road surfaces and rooftops, parking lots create large expanses of impervious surface areas, and are among the greatest generators of storm-water runoff and associated pollution. Town development standards should be careful not to over-specify the amount of surface parking necessary to serve a given land use. At times, it may even be necessary to restrain a commercial developer's plans for excessive parking. Such surplus parking areas are often intended to serve the peak demand requirements of one day each year (the day after Thanksgiving), but largely sit empty the balance of the year.

Policy HSE-9: Development activities in the SPECIAL FLOOD HAZARD AREA shall be carefully controlled. If development must occur, very low intensity uses such as open space and recreation shall be preferred.

Most people think of floodplain regulations as protecting buildings, property and possessions from floodwaters. From an environmental standpoint, the opposite is also true. Floodplain regulations also prevent buildings, property and possessions from polluting flood waters during major flood events. Materials used to build and maintain businesses, houses, yards, septic tanks, cars, televisions, appliances and other possessions can be toxic to surface waters in a flood event. Gasoline, paint thinners, mercury and a plethora of other hazardous substances have been known to enter flood waters when developed areas go under water. As this policy indicates, it is best to reserve floodprone areas for the types of uses that best tolerate flooded conditions. The Town's current regulations governing development in floodprone areas should be strongly supported and strictly enforced.

Sustainable, Green Building Practices

Policy HSE-10: The construction of energy efficient structures should be encouraged, including the use of "GREEN BUILDING" design (i.e. using renewable material and energy resources).

Policy HSE-11: Site plans for new development should work sympathetically with the NATURAL FEATURES OF THE LAND, including existing topography and significant existing vegetation.

Policy HSE-12: A combination of incentives and disincentives may be employed to protect EXISTING TREES and/or require the replacement of trees removed for development.

Policy HSE-13: GREEN INFRASTRUCTURE (grassed swales, rain gardens, bio-retention strips, cisterns, rain barrels, permeable pavements, etc.) shall be encouraged in place of gray infrastructure, whenever appropriate to the location and circumstances of development .

Well executed green building practices reduce operating costs by using less energy. Green building can draw upon **solar power, wind power, hydro power, or biomass** to generate some or all of their energy needs. Green building may also focus on building orientation and design to take advantage of passive solar radiation. Green building can result in improved public and occupant health due to improved **indoor air quality**, brought about by the use of less toxic construction materials, and better air circulation. Finally, green building designers often seek not only ecological but aesthetic harmony between a structure and its surrounding natural and built environment. Trees may be retained or planted to provide for natural cooling. Steep slopes, natural drainage corridors and clusters of existing trees are to be respected and worked with, rather than overcome by earth-moving equipment and over-engineered designs.

Consistent with low impact development and green building concepts, green infrastructure can reduce environmental impacts by lessening **storm water** runoff and the **heat island** effect found in cities. Green infrastructure emphasizes the use of natural systems to collect, disperse and restore stormwater runoff to the groundwater table. Examples of green infrastructure include grassed swales, rain gardens, bio-retention strips, permeable pavements, trees, and wetlands to capture and absorb rainwater.

In contrast, gray infrastructure uses entirely man-made materials and heavily engineered systems to “collect, pipe and dump” stormwater runoff. Examples of gray infrastructure include curb and gutter, catch basins and storm sewers, hardened ditches, channelized streams, and asphalt or concrete streets, sidewalks and parking lots.

While green infrastructure views rainwater as a valuable asset to be collected and restored to nature’s water cycle, gray infrastructure sees rainwater as an unwelcome nuisance to be taken off the site as quickly as

The contemporary architect or engineer faces few problems in structural design which nature has not already met and solved. By our own standards, her designs are structurally more efficient and aesthetically more satisfactory than ours.

Fred M Severud

The new creek bed is ditched straight as a ruler; it has been ‘uncurled’ by the county engineer to hurry the runoff. On the hill in the background are contoured strip crops; they’ve been ‘curled’ by the erosion engineer to retard the runoff. The water must be confused by so much advice.

Aldo Leopold, A Sand County Almanac, 1949

In the past, most people have been more concerned with obtaining the products and services of technology, and of the economic machine, and have shown little or no interest in what the production of these goods and services was doing to the natural environment.

People wanted big automobiles, fine television sets, a wide variety of household gadgets, enough electricity to run their machines, and a great assortment of other consumption goods; only recently have they begun to worry about what happened to these articles once they were no longer useful, and about what happened to the environment during their production.

*Marion Clawson, **America's Land and Its Uses**, 1972*

possible and disposed of. Green infrastructure helps reduce flooding and cools summertime air temperatures by providing shade and converting the sun's rays to plant energy. Gray infrastructure contributes to flooding and adds to the heat island effect found in urbanized areas.

Community-Wide Recycling and Waste Handling

Policy HSE-14: A variety of SOLID WASTE REDUCTION STRATEGIES AND SERVICES should be offered, including waste reduction, recycling and reuse.

The Town of Wake Forest and Wake County have several complementary programs in place to handle nearly every common form of material suitable for recycling. The Town, for example, provides **weekly collection of recyclable materials** to all residences that receive municipal trash collection service. Materials eligible for recycling under the Town's program include:

- Newspapers and inserts
- Clean mixed paper: Magazines, junk mail, cardboard, phone books, paper egg cartons, and food boxes
- Clean shredded paper
- Cans: Aluminum cans, tin and steel cans, clean foil and pie plates, empty aerosol cans
- Corrugated cardboard
- Glass food & beverage containers: Soda bottles, food jars, wine and liquor bottles.
- Plastic bottles: Narrow-necked, screw-top bottles, such as soda bottles, plastic milk and water jugs and colored bottles

In 2005, the Town authorized the addition of roll-out carts for recycling. Starting in that year, figures compiled by the Town's solid waste management company, Republic, showed recycling collections were averaging 126 tons each month through November of 2007. During December 2007 and January 2008, however, monthly tonnage jumped to 260 and 220 tons per month respectively. According to the Town Public Works Director, 98% of all households in Wake Forest now put their recycling cart out to the curb at least once per month. Dramatic improvements in recycling levels are attributed in large measure to the advent of the roll-out carts.¹

¹ As reported in the *Wake Forest Gazette*, February 28, 2008.

Policy HSE-15: Proper disposal of HOUSEHOLD HAZARDOUS WASTE MATERIALS shall be facilitated.

Wake County receives **household hazardous waste materials** the first Saturday of each month at the North Wake Landfill and Recycling Center, located on Deponie Drive off Durant Road between Capital Blvd. and Falls of Neuse Road. Materials eligible for drop off at the recycling center include:

- acids / bases
- batteries
- cooking oil
- drain openers
- fire extinguisher (dry chemical only)
- florescent light bulbs
- household cleaners and polishes, furniture strippers
- lighter fluid / fuel oil / kerosene / used motor oil / antifreeze
- photographic chemicals
- paints* / lacquers
- pesticides / herbicides / poisons
- solvents / thinners
- wood preservatives
- mercury thermometers
- propane tanks

In discussing this policy, Community Plan Committee Members noted that opportunities for recycling household hazardous waste in Wake Forest are too few and far between. Therefore, in addition to the County's role in facilitating the proper disposal of such materials, this plan recommends that the Town of Wake Forest undertake a more active role in sponsoring or facilitating hazardous waste disposal events and locations.

Policy HSE-16: ON-SITE RESIDENTIAL COMPOSTING shall be encouraged.

Wake County provides helpful educational materials on its website for households wishing to start their own backyard compost bin. (Visit <http://www.wakegov.com/recycling/residents/composting.htm>)

Policy HSE-17: OFF-SITE MULCHING and REDISTRIBUTION of landscape yard waste by the Town shall be continued.

The Town of Wake Forest facilitates the **mulching and reuse of landscape yard waste** by accepting leaves, twigs, grass, limbs, hedge clippings, hay/

pine straw, pine cones, and logs from homeowners. Leaves are picked up loose at the curb from October 1 through March 15. From March 16 through September 31, grass clippings, loose leaves, pine straw, etc. must be either bagged or in a container. Homeowners may then simply call the Town to request home delivery of leaf mulch or wood chips in 20 cubic yard increments. (Availability of leaf mulch or wood chips varies by season.)

Policy HSE-18: Town of Wake Forest supports education and activities that reduce LITTER AND ILLEGAL DUMPING, foster clean up of dumpsites, and encourage participation in programs such as Adopt-A-Highway and the Governors Litter Sweep.

For both financial and aesthetic reasons, the Town of Wake Forest and its residents have reason to want to minimize the volume of the waste stream generated in the community. Policies and actions that would educate the public to reduce, recycle and reuse materials will help diminish the volume of waste that would otherwise end up in the County landfill or strewn along the town's public streets.

Policy HSE-19: Area requirements for solid waste collection and disposal shall continue to be anticipated through ADVANCED, COOPERATIVE PLANNING between the Town of Wake Forest, Wake County, and other local government jurisdictions in the region.

All municipalities in the County, except for the Town of Holly Springs, contract with Wake County for the deposition of solid waste at County owned landfills. Wake County recently opened the South Wake Landfill, while at the same time closing down the old North Wake Landfill. The new landfill is expected to have a 20 to 25 year capacity. Even so, on-going cooperative planning now can help prevent future crises with regard to the disposal of solid waste.

Summary of Policies for a Healthy, Sustainable Environment

Policy HSE-1: Development policies should work to make Wake Forest more WALKABLE AND PEDESTRIAN-FRIENDLY, and less dependent on the single-occupant automobile.

Policy HSE-2: Compact, transit oriented MIXED USE DEVELOPMENTS should be encouraged so as to facilitate walking, biking and transit options.

Policy HSE-3: New, HIGHER DENSITY RESIDENTIAL DEVELOPMENT should be located within walking distance of jobs and services and designed to be compatible with current and future transit services.

Policy HSE-4: The environmental benefits of LOW IMPACT DEVELOPMENT, emphasizing on-site stormwater retention, infiltration and/or slow release, shall be recognized and facilitated.

Policy HSE-5: RUNOFF AND DRAINAGE from development shall be of a quality and quantity as near to natural conditions as possible.

Policy HSE-6: VEGETATED RIPARIAN BUFFERS (natural or planted) shall be required along all creeks, rivers, lakes and other water bodies in Wake Forest.

Policy HSE-7: CONSERVATION SUBDIVISIONS should be encouraged where site conditions call for minimizing environmental disturbance and protect adjoining natural resources. Streets and properties in such subdivisions may employ GRASSED SWALES to capture stormwater runoff, filter out pollutants and recharge groundwater resources.

Policy HSE-8: LARGE PARKING LOTS shall have landscaped planting islands and perimeter buffer strips and may use other design technologies to intercept and absorb runoff. Parking requirements shall be carefully gauged by land use so as not to create excessive paved surface areas.

Policy HSE-9: Development activities in the SPECIAL FLOOD HAZARD AREA shall be carefully controlled. If development must occur, very low intensity uses such as open space and recreation shall be preferred.

Policy HSE-10: The construction of energy efficient structures should be encouraged, including the use of "GREEN BUILDING" design (i.e. using renewable material and energy resources).

Policy HSE-11: Site plans for new development should work sympathetically with the NATURAL FEATURES OF THE LAND, including existing topography and significant existing vegetation.

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Policy HSE-14: A variety of SOLID WASTE REDUCTION STRATEGIES AND SERVICES should be offered, including educational programs on waste prevention, recycling and reuse.

Policy HSE-15: Proper disposal of HOUSEHOLD HAZARDOUS WASTE MATERIALS shall be facilitated.

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Policy HSE-19: Area requirements for solid waste collection and disposal shall continue to be anticipated through ADVANCED, COOPERATIVE PLANNING between the Town of Wake Forest, Wake County, and other local government jurisdictions in the region.

Economic Development

Summary of the Issues

Over the past several decades, the economies of North Carolina and Wake County, in particular, have been experiencing a steady shift away from traditional industrial and agricultural sectors and toward the technical, professional, and service sectors. “Information age” employers, exemplified by those located in the Research Triangle Park, have emerged as the dominant force in the regional economy. Consistent with this trend, statistics presented in the Growth Factors Analysis section of this plan reveal the following:

- The Raleigh-Cary MSA has consistently experienced lower unemployment levels than the state as a whole, due to the continued growth in technical and service occupations in the Triangle area.
- Traditional manufacturing makes up less than 15% of total employment in Wake County and Wake Forest compared to about 20% statewide.

- There are roughly twice as many information related jobs in Wake County and Wake Forest than the state as a whole, as a proportion of all jobs.
- There are roughly twice as many professional, scientific, managerial, and administrative jobs in Wake County and Wake Forest than the state as a whole, as a proportion of all jobs.
- There are nearly twice as many people with a college degree in Wake County and Wake Forest than the state as a whole.
- As might be expected with greater educational levels, median household and median family incomes are substantially higher in Wake County and Wake Forest than the state as a whole.
- There are half as many families in Wake County and two thirds as many in Wake Forest below the poverty level than the state as a whole, as a proportion of all families.

All of the above measures point to a very healthy situation economically for Wake County and the town of Wake Forest. The issue then is not *whether* the county and town are going to continue to grow, but rather *how* might they best grow. With this perspective in mind, the Town of Wake Forest, with funding from ElectriCities, prepared and adopted an ***Economic Development Strategy*** in 2005. More recently the Town, working in cooperation with the Wake Forest Chamber of Commerce, formulated an ***Implementation Plan*** for its ***Economic Development Strategy***. Key elements of the ***Implementation Plan*** include four strategic areas:

- **Business Retention and Expansion**—primarily focused on helping existing businesses in the town succeed and grow.
- **Product Development Plan**—calls for a three-pronged approach of office/mixed use development, development of a certified site, and completion of a multi-jurisdictional project with neighboring jurisdiction(s).
- **Develop Economic Development Website**—augment existing sites, provide links and target new business opportunities.
- **Building and Site Inventory**—build on work already done to create a comprehensive inventory of buildings and properties available for business placement.

These four implementation items have broad implications for economic development in Wake Forest for the mid to long range planning horizon and are therefore embodied in several of the Policy statements that follow.





Policies for Economic Development

Policy ED-1: NEW AND EXPANDING INDUSTRIES AND BUSINESSES should be encouraged which: (1) are compatible with the long-term quality of the area’s natural and cultural resources, (2) match up well with the area’s infrastructure and services, (3) employ and develop the skills of area workers and (4) diversify the local economy.

While there is general support in Wake Forest for new or expanding industries and businesses offering good paying jobs and broadening the tax base, there is not blind support for having new industry simply because it is new or bigger. Rather, new industry is generally favored when it enhances economic opportunity and the quality of life for residents already living in the community. Specifically, new growth is especially welcomed when it is compatible with the area’s natural and cultural resources, and does not compromise environmental quality. Further, business and industrial growth should not unduly strain area infrastructure, including particularly water supplies and transportation systems. Business growth is also favored when it offers opportunity to area workers to employ and upgrade their skills.

In addition, it is generally known that, over the past few decades, Wake Forest’s tax base and economy have been largely built upon residential construction and retail commercial development. Corporate level office developments and non-retail businesses have been under-represented in the economic growth of the town. Wholesale distribution and light industrial development have been even less part of the economic equation. It is therefore in the best interest of the Town to try to capture its share of the corporate office and light industrial development, thereby helping to diversify the local economy. Consistent with this, the Town should guard against further reducing the amount of existing industrially zoned land by rezoning to residential or retail uses.

Policy ED-2: To retain quality businesses and to attract new ones, the Town of Wake Forest should continue to invest in infrastructure and services that sustain and enhance the area’s already HIGH QUALITY OF LIFE, IMAGE AND CULTURAL IDENTITY.

Firms seeking to expand their business in Wake Forest, as well as those looking to establish a new enterprise in the town, will do so in part because of the recognized high quality of life that the community offers. In today’s business and industrial development world, it is not unusual for an industry to select one community over another due to factors not directly

related to industrial production. When choosing to expand or relocate, corporate decision-makers are not only looking for a qualified labor force, reasonable wage rates, favorable tax structure and available infrastructure, but also for an excellent parks system, quality schools, a vibrant town center, attractive streets and architecture and other factors. In Wake Forest's case, these quality of life factors give the community some of its greatest competitive advantages over other locales.

Policy ED-3: ECONOMIC AND BUSINESS DEVELOPMENT PARTNERSHIPS between the Town, other local jurisdictions, other economic development organizations, and private companies should be pursued.

Public-private partnerships have long proven their worth in making economic development happen. Likewise, it is in the best interests of all local governments in northern Wake County and nearby counties to work together for new business and industry regardless of the specific location in the region. New business development in partnership with Rolesville, Youngsville, or Franklin County offers the promise of new jobs and potentially shorter commutes for residents of Wake Forest. Each new job in a basic (i.e. export) industry will typically generate from two to four other jobs in related economic development. This "multiplier effect" can benefit the entire region.

Policy ED-4: The Town should strive for a financial and regulatory environment that supports the establishment and growth of SMALL BUSINESS. Efforts to provide information relevant to business development, opportunities for networking, and ombudsman assistance in facility expansions should be supported.

While small businesses expansions may not receive a level of public recognition equal to that of a ground breaking for a major new plant, collectively, they may have an equal or greater impact on the economy. It has often been stated that small businesses provide for 80 percent of all new jobs in the United States. Small businesses that ship their products and sell their services outside the community are no less export industries than a large manufacturer of "widgets". Wake Forest leaders have recognized this and have established small business retention and expansion as a high priority economic development strategy. In this regard, the Town can provide useful statistical and mapped information for local business owners, can facilitate networking among business owners, and can help expedite the application and development review process for small business expansion and relocation within the community.

Policy ED-5: Developing “PRODUCT” SUITABLE FOR BUSINESS PLACEMENT should focus on the identification, enhancement and certification of buildings and sites readily available for construction and/or occupancy. Special emphasis should be on sites suitable for corporate office, light industrial and non-retail business development.

The Town recognizes that if it desires to attract certain types of businesses to the community, then it must make it as convenient as possible for such businesses to find a suitable location ready for speedy construction and/or move in. In partnership with state economic development interests, a “certified sites program” guarantees that a particular opportunity site meets all necessary requirements for immediate business development. Once certified, state economic development officials can add such sites to their first line of properties for showing to business prospects. In the case of Wake Forest, Town leaders are especially interested in having one or more sites certified for corporate offices, light industrial and non-retail business development.

Summary of Policies for Economic Development

Policy ED-1: NEW AND EXPANDING INDUSTRIES AND BUSINESSES should be encouraged which: (1) are compatible with the long-term quality of the area’s natural and cultural resources, (2) match up well with the area’s infrastructure and services, (3) employ and develop the skills of area workers and (4) diversify the local economy.

Policy ED-2: To retain quality businesses and to attract new ones, the Town of Wake Forest should continue to invest in infrastructure and services that sustain and enhance the area’s already HIGH QUALITY OF LIFE, IMAGE AND CULTURAL IDENTITY.

Policy ED-3: ECONOMIC AND BUSINESS DEVELOPMENT PARTNERSHIPS between the Town, other local jurisdictions, other economic development organizations, and private companies should be pursued.

Policy ED-4: The Town should strive for a financial and regulatory environment that supports the establishment and growth of SMALL BUSINESS. Efforts to provide information relevant to business development, opportunities for networking, and ombudsman assistance should be supported.

Policy ED-5: Developing real estate “PRODUCT” SUITABLE FOR BUSINESS PLACEMENT should focus on the identification, enhancement and certification of buildings and sites readily available for construction and/or occupancy. Special emphasis should be on sites suitable for corporate office, light industrial and non-retail business development.

Arts, Culture and Historic Preservation

Summary of Issues

Wake Forest is among a handful of small towns across the state that has an unusually active arts community. Townspeople also show a significant appreciation for preserving the architectural and cultural heritage of the community. For example, during the first town meeting held for this community plan “Support for Arts and Culture” and “Small Town Character—Historic Preservation” were among the top ten areas of interest among citizens for the Desired Future for Wake Forest. Support for these items is especially significant given the wide range of concerns and interests that the residents of the town voiced at that meeting.



Organizations in Support of the Arts, Culture and Historic Preservation

Organizations involved in promoting and furthering the cause of arts, culture and historic preservation in Wake Forest include, particularly:

- **Wake Forest Cultural Arts Association**—a non-profit organization whose purpose is to “develop, promote, and coordinate the arts, thereby preserving the cultural heritage of Wake Forest and it’s environs and sustaining its cultural life”.
- **Wake Forest Downtown Revitalization Corporation**—a non-profit organization supported by both public and private funding, whose mission is to foster the health and vitality of Wake Forest’s historic downtown area.
- **Wake Forest Chamber of Commerce**—with its offices located in the heart of the downtown, the Chamber recognizes the unique value of historic downtown Wake Forest in promoting business expansion and relocation to the community.
- **Wake Forest College Birthplace Society**—a non-profit organization whose purpose is to maintain and enhance the Calvin Jones house, the collections, and the grounds which together make up the site of the original Wake Forest College.
- **Wake Forest Historical Association**—established in 2007, has as its purpose to celebrate, record and preserve the town’s past.
- **Wake Forest Historic Preservation Commission**—an appointed

body of town government that reviews and approves exterior changes to properties in the locally designated Wake Forest Historic District. (See map of Historic Districts at end of this chapter.) While not a promoter of the arts, per se, the mere existence of the commission speaks volumes as to the commitment of the Town and its residents to the culture and history of Wake Forest.

- **Wake Forest Garden Club**—a volunteer group that seeks to beautify the town, including sponsorship of the bi-annual garden tour.

Programs and Activities

Evidence for community support for arts and culture can be found in many on-going programs, activities and venues in Wake Forest. A few of the most notable events include:

- **Six Sundays in Spring**—a public music program sponsored by the Wake Forest Cultural Arts Association, which features live music on the grounds of the Wake Forest Birthplace Museum. For 2009, the free concert series will be moved to the new 1000 lawn-seat amphitheater to be constructed at Joyner Park.
- **Meet in the Street**—the annual arts and crafts festival hosted by the Wake Forest Chamber of Commerce, usually held around early May.
- **Autumn Arts Festival**—sponsored by the Downtown Revitalization Corporation and the Cultural Arts Association, and including a juried art show.
- **Wake Forest Area Artists Tour**—held each September and designed to allow visitors to meet and observe local artists at their places of work as well as in art galleries.
- **Christmas Historic Homes Tour**—held bi-annually in December to showcase and further the community's appreciation for some of the best and most unique historic homes in Wake Forest.
- **Garden Tour**—held bi-annually to showcase and further the community's appreciation for some of the best and most unique gardens in Wake Forest.
- **Wake Forest Singers**—a choral group sponsored by the Wake Forest Cultural Arts Association that presents an annual spring concert and performs at town functions throughout the year.
- **Herbfest**—a spring festival in its ninth year highlighting organically grown perennials, vegetables, herb plants, herb crafts, soaps, cooking recipes, live entertainment, and educational seminars. (Festival Park).

- **Good Neighbor Day**—an annual community gathering, hosted by the Human Relations Council, to bring people of diverse interests together in a spirit of community cooperation and service.
- **Wake Forest Fourth of July Celebration**—annual patriotic celebration featuring Art in the Park, fireworks, and the Children’s Parade.
- **Art After Hours**—held the second Friday evening of each month, featuring free entertainment and downtown area stores that stay open late.
- **Christmas Parade**—held annually each December, this traditional holiday parade passes through downtown Wake Forest.
- **Lighting of Wake Forest**—held the first Friday in December, this annual tradition lights up the downtown area for the Christmas season.

Arts and the Downtown

Significantly, arts activities have been shown to be natural fit for downtown areas like Wake Forest’s. Downtowns often have the type of unique, eclectic mix of interior and exterior spaces well-suited to art galleries, studios and art shows. Costs of rental space are also often below the costs of space at suburban shopping centers. Not surprisingly, there are a number of private art studios in downtown Wake Forest. Outdoor festivals are a natural draw for throngs of people. Thus, downtown Wake Forest provides a suitable stage for displaying art and holding cultural events, and art and cultural events provide an interesting reason to visit the downtown.



Planning for the Arts

In 2008, the Town of Wake Forest applied for and received a grant to prepare a Public Art Vision Plan. The plan was completed in the first part of 2009. Among other things, the plan sets forth the types of art, potential locations, artist involvement, funding opportunities and other factors important to the establishment of a fully coordinated public art program in Wake Forest.

Policies for Arts, Culture and Historic Preservation



Policy ACH-1: The Town should encourage efforts and actively participate in the provision of INDOOR AND OUTDOOR PUBLIC AND PRIVATE SPACES to showcase the work of visual and performing artists in Wake Forest.

Efforts are underway which will soon add to the number and variety of venues available in Wake Forest to showcase the work of visual and performing artists. A new 1000 lawn seat amphitheater is scheduled to open in 2009 at the 117 acre Joyner Park. As previously noted, the Six Sundays in Spring concert series will relocate to this new amphitheater for the 2009 season. The owners of the Cotton Company are also pursuing improvements to the privately owned Festival Park a few blocks south of the historic commercial core of downtown Wake Forest. Meanwhile, improvements to the streetscape of White Street downtown will include wider sidewalks, attractive street lights and street furniture, further enhancing the environment for outdoor festivals. Efforts to encourage more housing in or near the downtown promise to bring more people to the area, increasing opportunities for nightlife and entertainment.

Policy ACH-2: New private sector developments should be encouraged to include art as an integral element of PRIVATELY OWNED COMMON AREAS AND SEMI-PUBLIC SPACES.

In larger cities, it is not unusual to see visual art, sculptures and fountains prominently displayed as the focal point of an entry courtyard, public plaza or building foyer. Often, objects of art become iconic elements of a city's urban landscape. Others may become points of reference for navigating the city. This same principle can and should apply to private sector developments in Wake Forest. New shopping venues, office buildings and even amenities centers for planned residential developments could all benefit from the addition of works of art, thereby helping to secure Wake Forest's reputation as a center for the arts. (Of note, the *Urban Code Handbook* for the *Renaissance Plan* also encourages property owners to provide for "outdoor public art on their property or in the adjacent public right-of-way, to enrich the pedestrian experience and create a stronger sense of place." p. 11)

Policy ACH-3: BUDGETS FOR NEW CONSTRUCTION AND RENOVATIONS of town buildings should include a line item for the purchase and display of art.

As a growing town, it is to be expected that municipal properties and buildings in Wake Forest will be added or renovated to keep pace with the service demands of a larger population. One such project, for example, will be the new town hall, slated for completion in time for the 2009 Wake Forest centennial celebration. Public art is to be featured in new Town offices including a specially commissioned chandelier in new board meeting room, gallery walls designed into interior, as well as other places to display art in the new building.

This policy recommends the explicit acknowledgement of arts in the budget for new buildings and renovations of existing properties. Some communities have gone so far as to require that a percentage of the total project cost be set aside for arts. The need for that level of specificity is open to debate, and would depend upon the degree to which the town wishes to make public art a priority in the community.

Policy ACH-4: CULTURAL ARTS should continue to be enhanced as a permanent function of the Town's recreation program offerings.

As evidenced by citizen input at the Town meetings held for this Community Plan, as well as the numerous other initiatives outlined previously in this chapter, the residents of Wake Forest have shown considerable interest and support for cultural arts as an important community function. This plan seeks to acknowledge citizen interest in the arts by calling for increased Town support by making its resources available for cultural arts activities. This does not mean that the Town should take the lead away from the Wake Forest Cultural Arts Association or other organizations involved in the arts; rather, the policy recommends that the Town expand its support for the WFCAA and other local organizations in their efforts to provide arts programming. Further, the logical area of Town government in which to house an expanded coordinating function is the Town's Parks and Recreation Department. The recreation department is already accustomed to coordinating Town resources with many civic organizations and non-profit groups, including those associated with the arts. This policy calls for enhancing the Town's role in assisting with arts programming.





Policy ACH-5: DESIGN STANDARDS should continue to be employed so that development and redevelopment is consistent with the architectural context, community character, economic attractiveness and livability of Wake Forest.

The Town of Wake Forest employs three primary sets of design standards to ensure that architecture and development are compatible with the urban character and image of properties in their vicinity. The first two, (1) **Appearance Standards** (Community-Wide and Town Center) and (2) the **Urban Code for Renaissance Districts**, are described below. The third set of design standards are put forth in the **Wake Forest Historic District Design Guidelines**, discussed under the next policy.

Town Appearance Standards (Community-Wide): Section 9 of the Town Zoning Ordinance is entitled Appearance Standards. The introduction to Section 9 states that the purpose of the standards is to... “ensure that the physical characteristics of proposed development are compatible when considered within the context of the surrounding areas and to preserve the unique visual character and streetscapes of Wake Forest...Wake Forest strongly encourages architectural styles that build upon and promote the existing historic character of the town and supports the view that inspiring, well-maintained, and harmonious development is in the best economic development interests of all residents and businesses...The standards...shall apply to all non-residential development, including renovations, remodelings, face lifts, repainting, and additions to existing structures within the zoning jurisdiction of the Town of Wake Forest. (Zoning Ordinance p. 163)

The same introduction also notes that “These standards are provided for three geographic areas with requirements that are cumulative, thus requiring developments and businesses in the center of town to meet requirements in addition to those in outlying areas.” Thus, Subsection G sets forth standards for the “Town Center” area, while Subsection H spells out standards specific

to the “Renaissance Area”—further described in the paragraph immediately following.)

Urban Code Handbook of the Renaissance Plan for the Heart of Wake Forest: The *Renaissance Plan for the Heart of Wake Forest*, completed in 2003, led to the development of the *Urban Code Handbook*, adopted in 2005. As stated in the Purpose and Intent section of the Handbook, “*The purpose of these Design Guidelines is to enact regulations that implement the vision and goals of The Renaissance Plan for the Heart of Wake Forest. These Design Guidelines are intended to attach the same or greater level of importance to the overall building and site design as is placed on the use contained within to facilitate the creation of a convenient, safe, and attractive community. Buildings are expected to be added to Downtown Wake Forest as long-term additions to the architectural vibrancy of the community for the purpose of encouraging economic development activities that enlarge the tax base by providing desirable residences and places of shopping, employment and public assembly.*” (p. 2.) As noted above, the special development standards of the *Urban Code Handbook* have been incorporated into Section 9, Subsection H of the Town Zoning Ordinance.

Policy ACH-6: The identification, restoration, and active use of structures, buildings, monuments, landmarks, sites and neighborhoods of historic or architectural significance shall be encouraged to safeguard the heritage of the town, and to enhance their educational, economic and cultural value to the community and State of North Carolina.

Policy ACH-7: The destruction of architectural, historic, and archaeological resources of Wake Forest shall be strongly discouraged.¹

Nearly three decades ago, Wake Forest community leaders recognized the significance of preserving its historic architectural resources as a vital community asset and major drawing card for the town’s future growth and development. In 1979, the Town established by ordinance the forerunner of today’s Historic Preservation Commission. Subsequent historic preservation efforts over two decades led to the development of the town’s most recent *Historic District Design Guidelines*, adopted in 1999. These guidelines offer greater assurance that the cultural and historic resources of Wake Forest will continue to be one of the town’s most important community assets for many years to come. An excerpt from the introduction to the Design Guidelines follows:



¹ Note: In 2008, the Town of Wake Forest amended its zoning ordinance to authorize mandatory delay of demolition of historic properties for up to 365 days.

Wake Forest Historic District Design Guidelines (Locally Designated as opposed to National Register District): *“The purpose of these guidelines is to provide standards by which the Wake Forest Historic Preservation Commission may evaluate the compatibility of a proposed improvement, alteration, or demolition in the Wake Forest Historic District or on a locally designated property. The guidelines and standards...are intended to ensure...that changes in covered properties shall be in harmony with the reasons for [their historic] designation, yet to be flexible so that property owners will be encouraged to make innovative improvements. At the same time, property owners will be assured that other buildings and improvements in the Historic District and to other historic properties will be aesthetically compatible with their own.”* (p. 3)

Summary of Policies for Arts, Culture and Historic Preservation

Policy ACH-1: The Town should encourage efforts and actively participate in the provision of INDOOR AND OUTDOOR PUBLIC AND PRIVATE SPACES to showcase the work of visual and performing artists in Wake Forest.

Policy ACH-2: New private sector developments should be encouraged to include art as an integral element of PRIVATELY OWNED COMMON AREAS AND SEMI-PUBLIC SPACES.

Policy ACH-3: BUDGETS FOR NEW CONSTRUCTION AND RENOVATIONS of town buildings should include a line item for the purchase and display of art.

Policy ACH-4: CULTURAL ARTS should continue to be enhanced as a permanent function of the Town’s recreation program offerings.

Policy ACH-5: DESIGN STANDARDS should continue to be employed so that development and redevelopment is consistent with the architectural context, community character, economic attractiveness and livability of Wake Forest.

Policy ACH-6: The identification, restoration, and active use of structures, buildings, monuments, landmarks, sites and neighborhoods of HISTORIC OR ARCHITECTURAL SIGNIFICANCE shall be encouraged to safeguard the heritage of the town, and to enhance their educational, economic and cultural value to the community and state.

Policy ACH-7: The DESTRUCTION OF ARCHITECTURAL, HISTORIC, AND ARCHAEOLOGICAL RESOURCES of Wake Forest shall be strongly discouraged.

Public Safety

Summary of the Issues

Citizens attending the first town meeting for the Community Plan did not place public safety services among their greatest concerns for the future of Wake Forest. In fact, among the sixteen broad elements of a desired future that emerged from the town meeting, concern for public safety was ranked lowest. Rather than interpreting this as a sign of complacency, it would appear that there is a general level of satisfaction with public safety services in the Town of Wake Forest. Even so, this plan includes a discussion of such services to allow for continued improvements in these areas. Descriptions of current police and fire services in Wake Forest are then presented, followed by summaries of plans for the future.

Wake Forest Police Department



The following summarizes the personnel, police stations, firing range, and special services units of the Wake Forest Police Department:¹

Police Department Personnel

The Wake Forest Police Department has 54 full-time sworn officers, 7 full-time telecommunicators, 3 full-time secretaries, and one full-time time parking enforcement officer.

Police Stations

- **The Main Station** is located at 401 East Owen Avenue. Opened in 1991, the headquarters building originally housed 15 police officers. Today, the Main Station houses the office of the police chief, the administrative staff, and the communications center, which dispatches all calls for service. While the Department maintains three substations in addition to the main station, all of the Town's 54 police officers are nonetheless based from this building. The Main Station is the only station occupied 24-hours-a-day, seven-days-a-week.
- **Station 2**, located in a former shopping center on Ligon Mill Road near South Main, houses the police department's Investigative Division. Station 2 is open to the public 8 am to 5 pm, Monday

¹ Information provided in this section has been summarized from the Police Department website: http://www.wakeforestnc.gov/residents/police_policestations.aspx

through Friday, to report crimes or request assistance.

- **Station 3**, located on the campus of the Dubois Center, is used by the police department's patrol lieutenants, and is also used for roll-call and briefing during squad shift changes.
- **Station 4** is located on North Allen Road in the Massey Apartments complex. This station houses the D.A.R.E. officer and the Aggressive Criminal Enforcement (A.C.E.) Team. It is also used by patrol officers to write reports and complete paperwork.

Wake Forest Police Department Firing Range

- The Department's firing range is used by police officers for their required yearly qualifications on all weapons. The range is also used by the department's Tactical Service Unit for training. The department conducts several in-service training schools such as Close Quarter Pistol and Officer Survival classes at the firing range.
- The firing range is surrounded by a locked security fence and is not open to the public.
- In 2007 the Department constructed a POPAT (police officers physical abilities test) course just outside the security fence. All police officers are required to complete the POPAT three times each year.

Patrol Cars

The Police Department maintains a fleet of 58 vehicles, allowing every police officer to have their own patrol car, with 4 to spare. This also enables the Department to maintain a "take home car program" for any officer living within 5 miles of town. On average, 6 to 8 patrol cars are replaced each year, or no less than 10% of the fleet. Occasionally, during "slow" periods patrol officers may double up in a single patrol car to conserve on fuel.

Patrol Districts

The Town of Wake Forest is divided into three districts for the purpose of police patrolling. These districts are adjusted from time to time to keep pace with changing development patterns, population distribution, street patterns, newly annexed areas and law enforcement objectives.

Patrol Personnel and Special Teams

- **Regular Patrols**—On any given day there are normally 7 officers on duty patrolling these three districts—1 lieutenant, 1 sergeant, and 5 patrol officers, of which one is a canine officer.



- **Traffic Enforcement Unit (T.E.U.)**—The Traffic Enforcement Unit consists of four officers assigned to handle speeding and traffic issues in the town, thereby freeing up patrol officers for other police matters.
- **Aggressive Criminal Enforcement Team (A.C.E.)**—The Aggressive Criminal Enforcement Team consists of four officers assigned to patrol targeted areas with the objective of substantially reducing crime in the troubled area.
- **Tactical Service Unit (T.S.U.)**—The Tactical Service Unit includes two fully-trained snipers/observers. The TSU is trained and equipped to respond to critical incidents, including high risk warrant service, barricaded subjects, and hostage rescue. As a part-time tactical unit, members of the TSU also maintain other positions in the Wake Forest Police Department. Members of the TSU must pass a higher physical fitness and shooting standard and receive specialized training in tactical and weapons operation.

A Note Concerning the Town's Street Pattern

According to Police Chief Greg Harrington, the town badly needs a major east-west street on the north side of town. Currently, police officers must navigate a maze of streets to get to many locations. The street would provide more convenient traffic movement across the north side of town for both emergency services and the general public.

Future Plans for the Police Department

- **New Police Headquarters**—At the time of this writing, a space needs study and preliminary plans have been completed for the construction of a new police headquarters building on a site adjoining the new Town Hall, currently under construction. Unofficial plans call for construction of the new headquarters to commence within five years after the completion of the new Town Hall, scheduled for occupancy in 2009. Preliminary plans for the new headquarters for the police department call for a four story building with an all weather pedestrian connection to the new Town Hall. Features of the police headquarters building would likely include additional interview rooms, a larger evidence room, a larger and more advanced communications center, conference room(s) and a workout facility for police officers. The new larger building will allow all police functions to be brought together under one roof, rather than scattered at various sites around town. Depending on the budget available, the building might need to have as much or more square footage as the new Town Hall.

- **Bicycle Patrols**—More than a decade ago, the Wake Forest Police Department employed police patrols on bicycles. The bicycles were purchased with grant funding intended to promote community policing within certain targeted urban neighborhoods. Over the years, the Town's inventory of police bicycles reportedly fell into general disrepair, thereby discontinuing that form of patrolling. Recent neighborhood improvement planning, particularly in the northeast part of town, has rejuvenated interest in police patrols on bicycle.
- **Firing Range Changes**—There have been early discussions as to the need to relocate or reconfigure the design and exposure of the Town Firing Range as the area grows up around it.
- **Computer Aided Mapping, Reporting and Record Management System**—The Police Department is in the process of establishing a new computer-aided mapping reporting and record management system. Some \$250,000 of the estimated \$500,000 to \$600,000 total cost has been budgeted to date. Discussions have begun with several vendors as to the best system and price.
- **Education and Training**—The current police chief believes strongly in the value of higher education to an effective, well-rounded police officer. Police officers are encouraged to obtain 2 or 4-year college degrees. Promotions within the department are predicated, in part, by each officer obtaining a formal degree after high school.

Wake Forest Fire Department, Inc.

The Wake Forest Fire Department will soon be approaching a century of service to the citizens of Wake Forest and surrounding areas. The following briefly summarizes the evolution of the Wake Forest Fire Department, Inc. to its present form:

Fire Department History

The Wake Forest Fire Department was founded in 1921 as a volunteer community fire brigade to provide fire protection to the Town of Wake Forest and Wake Forest College. In 1956, the Wakette Fire Protection District was founded to provide fire protection to unincorporated areas outside the Town of Wake Forest. The two departments operated alongside each other for nearly three decades, using the same personnel and officers but different equipment. In 1983, the two departments were merged into the Wake Forest Fire Department, Inc. Of note, the Town of Wake Forest was the first municipality in the state to contract fire protection services to an outside agency.

History of Fire Station Locations

Over the course of its existence, the Wake Forest Fire Department has operated out of many different locations and buildings. Initially, the department housed its very limited fire fighting equipment in rented space in a downtown garage. The fire department then moved several times during the twentieth century, all in the downtown area. In 1973, the headquarters settled into a renovated service station in the 300 block of South White St., next to the rural-serving (Wakette) fire station. Finally in 1986, the newly merged Wake Forest Fire Department, Inc. moved into the current main fire station on Elm Avenue. In 2001, Station 2 was completed on Ligon Mill Road, and also included an 800-square foot suite leased for use as a substation by the Wake Forest Police Department.

Service Area and Fire District Size

The fire department contracts with both the Town of Wake Forest and Wake County to provide fire protection to an area from the Neuse River to the Franklin County line. The Town of Wake Forest covers about 25 square miles, while the rural portion of the fire district adds another 15 square miles. There are about 26,000 residents and 9,000 workers within the corporate limits. Outside of the town, there are about 15,000 residents and about 3,000 workers.

Fire Department Personnel

For most of the twentieth century, the Wake Forest Fire Department was an all volunteer organization. As the community grew, demands placed on the department also grew steadily. Finally, in 1993, in recognition of the increasingly difficult challenges being faced by an all volunteer force, the Fire Department's Board of Directors authorized the creation of three full-time paid positions. Now, some 15 years later, the department has 40 paid positions and 37 volunteer for a total of 77 people on staff. As evidence of the success of the department, there have been additions to the volunteer staff in the last four years.

Fire Department Funding

Tax Rate Set Aside: The Town and Wake County contract separately with the independent Wake Forest Fire Department to provide fire protection to the town and rural district. For fiscal year 2008-2009, the Town set aside 12 cents of the 51-cent tax rate to fund the fire contract. This set aside is intended to help achieve a maximum five-minute response time to every occupied building in town. Representing a two cent increase from the previous fiscal year, the additional funding will generate an estimated \$600,000 to hire more firefighters to staff a truck that "floats" during the

daytime near the future Forestville Road station.

Fire Protection Fee: A fire protection fee was established effective January of 2008. Monies raised through the fee will be used to fund the Fire Department's 10-year \$11.525-million capital improvement plan (CIP). The CIP calls for four new fire stations at an estimated cost of \$9.750 million and four new fire engines at an estimated cost of \$1.775 million. Under the fee schedule, a new single family detached home pays \$592 while a new multi-family unit pays \$481. Fees for non-residential properties can be quite substantial. New industrial buildings pay \$389 per thousand square feet, while commercial and office buildings pay \$649 per thousand square feet. Thus, a new 100,000 square foot shopping center would pay a fire protection facility fee of \$64,900. The town's impact fees cannot be used for operations, maintenance or personnel, all of which must come from an annual budget.

Future Plans for the Fire Department

The most recent capital improvement plan for the Wake Forest Fire Department calls for four more fire stations to be built over the next 10 years (i.e. through 2018). The cost of all four stations and four new fire engines was reported in the *Wake Forest Gazette* at an estimated \$11.5 million as of November 2007. The first two stations, to be located on Forestville Road and Wake Union Church Road, are projected to cost \$3 million. The Department recently renovated and occupied an existing brick residence on four acres on Forestville Road. The locations of all proposed stations were based upon an analysis of response times, with the objective of reaching any occupied building in town within five minutes.





The Wake Union Church Road station will be located in the Wake Union Place shopping Center on land donated by the developer. The department plans to purchase a new large tank truck and another engine truck to equip the two stations.

In addition to the two new stations already identified, the Department is likely to seek property along or near Wait Avenue for a fifth station on the east side of town. A sixth station would likely be on the north side of town near the Franklin County line.

Summary of Policies on Public Safety

Policy PS-1: The Town shall employ community education, school, and public involvement programs to enhance COMMUNITY AWARENESS of public safety issues.

Policy PS-2: The Town shall periodically review the need for additional paid PERSONNEL, CAPITAL IMPROVEMENTS AND EQUIPMENT NEEDS to meet or exceed public safety standards, insurance ratings and other measures of public safety.

POLICY PS-3: As the area grows, ADDITIONAL SUBSTATIONS for public safety services shall be strategically located, provided that sufficient resources can be made available to properly staff and equip them.

POLICY PS-4: The Town shall be proactive in supporting legislative efforts to STRENGTHEN LOCAL LAW ENFORCEMENT TOOLS; when such tools are made available, the Town will work to implement them.

POLICY PS-5: The Town shall employ a holistic approach to public safety involving residents, businesses, and institutions in the preparation of NEIGHBORHOOD IMPROVEMENT PLANS, with priority given to public safety concerns.

POLICY PS-6: Excellence in law enforcement, fire protection, and emergency services shall be encouraged through on-going EDUCATION, TRAINING and participation in NATIONAL ACCREDITATION PROGRAMS.

POLICY PS-7: The Town shall support the establishment of an EAST-WEST THROUGH STREET (OR LOOP ROAD) ON THE NORTH SIDE OF TOWN to improve emergency access to locations in that area.

Leadership and Community Involvement

Summary of Issues

Strong leadership and meaningful citizen involvement is critical to the success of any effective community planning program. Fortunately, the town of Wake Forest is well stocked with talented leaders in all areas of civic life. From successful business people, to respected political leaders and public servants, to philanthropists— big and small, to community-minded news media, to institutions of faith and learning, to citizens with a special appreciation for history and tradition, Wake Forest is unusually blessed with more than its share of gifted leaders.

This chapter summarizes the many opportunities for civic leadership and community involvement in the community. It begins with an overview of various Town advisory boards and committees. That section is followed by an examination of how the Town's planning and development review process allows for meaningful citizen input to proposed developments and other plans. A third section of the chapter describes the methods by which the Town communicates information to its citizens, thereby enabling area residents to get involved in the affairs of the Town. The chapter concludes with how the Wake Forest community coordinates and leverages the activities of the many civic organizations active in the area.



Advisory Boards and Other Committees of the Town

Policy LCI-1: The Town should continue to emphasize the importance of ADVISORY BOARDS AND COMMITTEES in conducting the Town's business.

Policy LCI-2: Boards and committees of the Town should be generally REPRESENTATIVE OF THE POPULATION AND GEOGRAPHY of the planning area or subject matter being addressed (e.g. POPULATION: youth, minorities, seniors, income groups. GEOGRAPHY: neighborhood, downtown, highway corridor, historic district.)



Elected officials often rely upon advisory boards and committees to spread the workload and involve a larger number of citizens in the process of governing the community. The Town of Wake Forest has created the following advisory boards and committees to advise and assist the Board of Commissioners in conducting the Town's business. Appointments to Town boards and committees are made each December. From all accounts, the Town appears to do a very good job of selecting board and committee members based upon their demographic, social and economic background as well as geographic location in the community.

An appreciation dinner is held each January to honor the civic contributions of all advisory board members serving the Town. In the paragraphs below, the various boards of the Town are listed, followed by the source of authority for each board, and a generalized description of the board's duties.

Board of Adjustment (Zoning Ordinance: Article XI)

Decides upon (1) the issuance of variances from requirements of the Town zoning ordinance and (2) appeals from determinations made by administrative officers of the Town.

Cemetery Advisory Board (Code of Ordinances: Ch 12, Art II)

Advises the Board of Commissioners and Town staff in matters affecting cemetery policies and improvements.

Greenways Advisory Board (Code of Ordinances: Ch 22, Art IV)

Advises the Board of Commissioners and Town staff in the operation of the Town greenways system. This may include recommending policies, acquisitions and expansions, and improvements to the system.

Historic Preservation Commission (Zoning Ordinance: Art V.)

Prepares guidelines and makes decisions regarding proposals for alteration or demolition of buildings in the Town's local historic district or designated landmarks.

Human Relations Council (Code of Ordinances: Ch 18, Art II)

Promotes peace, understanding, respect, good will and harmony among all town citizens by providing an impartial forum for better communications between all segments of the community.

Planning Board (Code of Ordinances: Ch 24, Art II)

Determine whether specific proposed developments conform to the principles and policies of the comprehensive plan and development standards controlling the growth and improvement of the Town.

Recreation Advisory Board (Code of Ordinances: Ch 22, Art II)

Advises the Board of Commissioners and Town staff in the operation of the

Parks and Recreation Department; may include recommending policies, programs, activities, acquisition and development of park lands, modifications to existing facilities and applications for bonds and grants.

Senior Center Advisory Board (Code of Ordinances: Ch 22, Art III)

Advises the Board of Commissioners and Town staff in the operation of the senior center; may include recommending policies, programs, activities, and modifications or expansion to the center.

Urban Forestry Advisory Board (Code of Ordinances: Ch 34 Art II)

Advises the Board of Commissioners and Town staff concerning the Town's urban forestry plan for the care, preservation, pruning, planting, replanting, or removal of trees, shrubs and other planting materials in parks, streets, and any other public areas.

Youth Advisory Board (by action of the Board of Commissioners)

Encourages high school aged students to learn leadership skills, gain knowledge of how the Town government operates, and serve in an advisory capacity to the Wake Forest Board of Commissioners on issues of interest to Wake Forest youth.

Centennial Celebration Committee (by action of the Board of Commissioners) Formed in December 2006 with the mission of commemorating the Town's 100th birthday, recognizing its "long and storied history", and honoring the many organizations, businesses, schools and individuals that contribute to the community.

Public Input to Development Proposals and Plans

Policy LCI-3: Community involvement should be encouraged in decisions on land use and development by providing early opportunities for constructive public input on PROPOSED DEVELOPMENTS, as well as encouraging early communications between developers and the affected public.

Timely, effective public input to development proposals is often one of the most challenging aspects of local government decision-making. For the developer, time and money are on the line. For nearby residents and/or neighborhoods, a new development means change—a change in view or exposure, a change in the number of trees on a favorite wooded lot, a change in traffic patterns or volumes, a change in exterior lighting or noise and perhaps a perceived or real change in property values. Thus, citizen input is public in nature but personal in impact, making for potentially



contentious situations. The Town of Wake Forest employs a number of mechanisms by which town residents and property owners may voice their views about proposed developments:

Town Planning Department Staff

The Town Planning Department Staff is the first line of contact for those proposing to develop property as well as those that might be affected by new development. Professional planners for the Town have a thorough knowledge of all Town ordinances, policies and procedures concerning development. Town staff can usually provide advice and feedback early on to a developer concerning the general feasibility of a project relative to Town standards. The Town staff is also responsible for assembling meeting agendas for the Planning Board and Town Board, and for seeing that all public notifications are provided in accordance with state law. Upon receipt of a complete development submission, Town staff also conducts technical reviews of proposed developments and offer their professional opinion as to how well a proposal satisfies Town policies and other requirements.

Wake Forest Planning Board

Appointed by the Town Board of Commissioners, this nine-member board reviews and makes recommendations on nearly every type of development proposal in the town. Planning Board meetings are often the focal point for public dialogue and discourse about planned developments in Wake Forest. Subdivision plats, rezoning petitions, special use permits, and site plan reviews are but a few of the types of cases routinely appearing on the agenda for the monthly meetings of the Planning Board. Opportunity is provided at each meeting for development interests to present their case and for those affected by the proposed development to voice their concerns and perspectives.

Town Board of Commissioners

While the Planning Board provides a valuable forum for public input and is the primary advisory group to the Town Board of Commissioners, the Town Board has the ultimate authority for final decisions on development. These elected officials have the benefit of receiving recommendations and information from the Town staff as well as the Planning Board. Similar to the Planning Board, opportunity is provided at Town Board meetings for development interests to present their case and for those affected by the proposed development to voice their concerns and perspectives.

Special Meetings between Developer and Neighborhood Residents

The Town encourages, but does not require, developers to arrange for one or more informal neighborhood meetings with residents living near a proposed major project. Often, these meetings are best arranged before the proposed project is reviewed in a formal public hearing held by the Planning Board. Such meetings allow the developer to present proposed

plans and for residents to respond in an atmosphere that may be less highly charged than that of an official public hearing.

Public Involvement in Neighborhood and Special Area Plans

Policy LCI-4: NEIGHBORHOOD AND SPECIAL AREA PLANNING should be encouraged to foster public involvement in the preparation of closely tailored, action-oriented special area plans and improvements. Public participation should be a central, on-going feature of such plans.

Just as a private developer should seek input from area residents on proposed development plans, so should the Town seek significant input on publicly sponsored neighborhood and special area plans. Examples of such plans include:

- A plan for a new greenway section
- A special highway corridor plan
- A neighborhood improvement plan
- A downtown area streetscape plan
- A plan for a new park or park expansion
- Changes to historic district guidelines

Commendably, the Town of Wake Forest has an excellent track record of citizen involvement in the preparation of such plans. Involvement usually begins with the appointment of a plan steering committee, followed by local area community meetings hosted by the steering committee. Town staff normally functions as facilitators to the process, welcoming input and



actively listening to citizen concerns and ideas. For maximum effectiveness, study area property owners are encouraged to partner with the Town in implementing the plan, thereby also ensuring that the plan is carried out to everyone's satisfaction.

Town Public Information and Communications

Policy LCI-5: Maintenance and enhancements to the Town's INTERNET AND MULTI-MEDIA news dissemination capabilities should continue as a priority to facilitate citizen access to Town information.

Leadership and citizen involvement are better enabled when area residents are well informed as to opportunities for helping out with the affairs of their community. The Town of Wake Forest employs a number of different methods of communication to reach citizens with updated information about what is going on and how to get involved. These primary methods are summarized below:

Town News

The Town's "umbrella" news source, www.wakeforestnc.gov/news_index.aspx provides access to new and archived press releases, the Community Calendar, as well as the latest editions of E-News, the Town Manager's weekly Weblog, and Community Channel 10 listings.

E-News

A free, subscription-based E-newsletter about the Town government of Wake Forest. E-alerts may also be sent concerning road construction, planned power outages, important meetings, and other community activities and events.

Town Manager's Weblog

The Town Manager shares his thoughts on the week's happenings in and around Wake Forest every Friday. (www.wakeforestnc.gov/townmanager-blog.aspx)

Community Calendar

Provides dates, times, and overviews about upcoming programs, activities, and special events in Wake Forest. (www.wakeforestnc.gov/communitycalendar.aspx)

Community Channel 10

Wake Forest's local government cable channel. Provides news on programs,

services, upcoming meetings, and special events. Meetings of the Town Board and Town Planning Board are routinely broadcast live and then repeated as recorded programs. Also provides information on programs and classes offered by the Wake Forest Parks & Recreation Department.

Focus on Wake Forest

Wake Forest's monthly news and information program airing on Community Channel 10. Produced by the Town Communications Department, each episode consists of three short segments highlighting initiatives either already underway or planned for the future.

Coordination of Volunteer Organizations and Efforts

Policy LCI-6: The Town seeks to actively partner in cooperation with the coordinated efforts of CIVIC AND VOLUNTEER ORGANIZATIONS for maximum impact in the community.

The Town recognizes that it alone cannot begin to accomplish all that can be done through the combined efforts of many organizations acting in concert. There are too many civic and volunteer organizations serving Wake Forest to list and describe each one individually; nor is it necessary to do so in this plan.

The Wake Forest Community Council (WFCC) was formed in the 1970s to coordinate and leverage the efforts of the many civic organizations active in the area. The WFCC receives administrative and organizational support from the Wake Forest Chamber of Commerce. The Chamber of Commerce, in turn, receives support from the Town.

Virtually all non-profit and civic clubs in Wake Forest belong to the Community Council. Examples of member organizations include:

- Wake Forest Cultural Arts Association
- Wake Forest Woman's Club
- Hoops for Wake Forest
- Kiwanis Club
- Wake Forest Downtown Revitalization Corporation
- Town of Wake Forest
- Wake Forest College Birthplace Association
- Friends of the Library
- Garden Club
- Graham Johnson Cultural Arts Endowment

The WFCC meets monthly from September through May to share information about on-going projects, to coordinate efforts and to help each other in getting things done. Each December, the WFCC hosts a Community Christmas Dinner at which time a Citizen of the Year and Civic Organization of the Year are honored.

Conclusion

Effective community leadership and civic involvement is critical to the success of any local government initiative. This is especially true in developing and implementing a long-range community plan. The policies of this plan emphasize the need for on-going civic involvement from a broad and deep pool of informed and capable citizens. Various means of maintaining effective lines of communication are also suggested. The Wake Forest Community Council is highlighted as a very necessary and helpful group through which to leverage the impact of volunteers and civic organizations in getting things done.

Summary of Policies for Leadership and Community Involvement

Policy LCI-1: The Town should continue to emphasize the importance of **ADVISORY BOARDS & COMMITTEES** in conducting the Town's business.

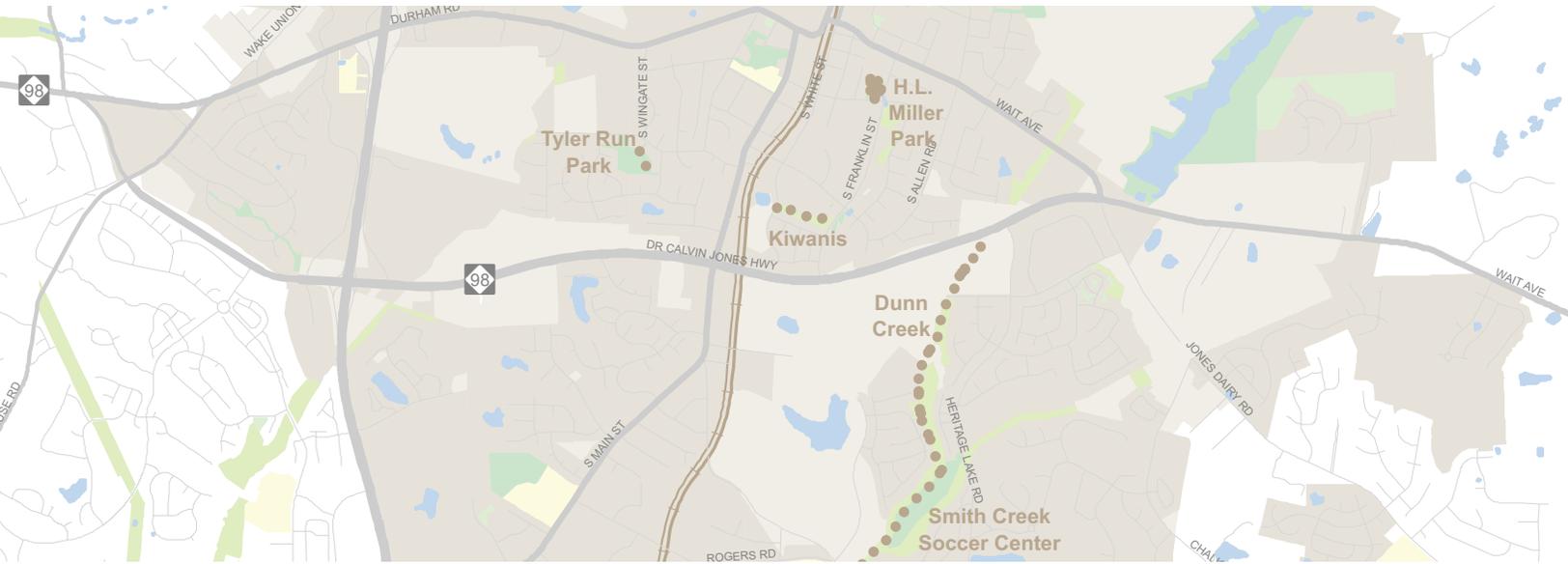
Policy LCI-2: Boards and committees of the Town should be **REPRESENTATIVE OF THE POPULATION AND GEOGRAPHY** of the planning area or subject matter being addressed (e.g. Population: youth, minorities, seniors, income groups Geography: neighborhood, downtown, highway corridor, historic district.)

Policy LCI-3: Public involvement should be encouraged in decisions on land use and development by making the public aware of **PROPOSED DEVELOPMENTS** at the earliest lawful opportunity, as well as fostering communication between developers and the general public.

Policy LCI-4: **NEIGHBORHOOD AND SPECIAL AREA PLANNING** should be encouraged to foster public involvement in the preparation of closely tailored, action-oriented special area plans and improvements. Public participation should be a central, on-going feature of such plans.

Policy LCI-5: Maintenance and enhancements to the Town's **INTERNET AND MULTI-MEDIA** news dissemination capabilities should continue as a priority to facilitate citizen access to town information.

Policy LCI-6: The Town should participate proactively in the cooperation of efforts among **CIVIC AND VOLUNTEER ORGANIZATIONS** for maximum impact in the community.



Area Descriptions

Purpose of Growth Strategy Map¹ and Relationship to Policies

To better plan for the provision of municipal services to future growth areas, it is useful to visualize on a map the entire planning area with regard to the desired density and character of development. By showing growth areas on a map, the Town can help direct where various forms of development and redevelopment might best occur, and where natural and cultural resources should be conserved. The five types of growth areas identified on the *Wake Forest Growth Strategy Map* are:

- **Town Center Zone** (including the Historic Town Core)
- **General Urban Zone**
- **Sub-Urban Zone**
- **Highway Corridor Zone**
- **Conservation and Flood Zone**

Wetlands

Special Flood Hazard Areas

¹ See map insert, back of plan

(1) Town Center Zone *(including Historic Town Core)*

Description of Area Character

The **Town Center Zone** includes most of the older developed properties in town, typically dating to the period before the departure of Wake Forest College in 1956. At the heart of this area rests the Historic Town Core, made up of the traditional downtown commercial area and surrounding neighborhoods. This contiguous area also includes properties that were once developed and are now vacant, as well as intervening properties that have never been developed. The area is distinctly urban in character. Distinguishing features of much of this area include its walkability, mature street trees, and well integrated street network. It has the full range of urban infrastructure in place, including water, sewer and stormwater services. There are several public parks in the area that, significantly, are accessible on foot or bicycle, as well as by car. The area also includes many of the Town's cultural institutions and gathering places, and the largest concentration of historic properties of anywhere in the community. Currently, substantial public investments in streetscape improvements in or near the downtown are in various stages of planning and construction. Construction has also begun on a new Town Hall, scheduled for completion before the end of 2009. Recently, a traditional neighborhood development (TND) has been approved for a large tract of land just south of the new NC 98 Bypass and east of the Town's midline, as defined by the rail line. Holding Village promises to incorporate many features of urban development usually associated with older, more walkable parts of cities: smaller lots and building setbacks, a compatible mix of residential and non-residential uses, and a more fully networked system of streets.

Policy Emphasis

The policy emphasis of this plan is to retain the urban, pedestrian-oriented character of the **Town Center Zone**. Large scale commercial development and parking lots would detract from the pedestrian-oriented, small town character of this area and should be avoided. Development and redevelopment should respect the largely modest scale, and historic character of existing desirable structures and sites in this area. New streets and avenues should provide for a fine-grained network of alternative routes. Recent public investments in streetscape improvements should continue, given the critical significance of the area as the cultural heart and soul of Wake Forest, and a principal drawing card for new growth. New residential development should be at a truly urban density, with the objective of placing a greater number of buying households within walking distance of the downtown commercial district, or nearby neighborhood services. Whenever possible, homes with porches should pull up to the street and sidewalk, emphasizing the importance of the streetspace to each neighborhood.

(2) General Urban Zone

Description of Area Character

The **General Urban Zone** includes developed and undeveloped land areas outside the older parts of Wake Forest, but within the existing municipal water and sewer service area. Most developed properties within this area were built upon during the “modern era” of the Town’s growth, from the 1950’s to the present time. This area is distinctly less urban in character than the **Town Center Zone**. Residential developments in this area might be best characterized as predominantly large lot subdivisions for single family homes. There are also some multifamily developments that typically have a large number of units and a central management office. Distinguishing features of this area include circuitous streets and greater use of cul de sacs than in the older, more urban areas of town. Most recreational facilities are in the ownership of homeowners associations. The area’s few public parks tend to be large and accessible mainly by automobile. In recent years, some greenway sections and trails have been established in tandem with private development, an encouraging trend. Non-residential developments tend to cluster adjacent to thoroughfares and are accessible almost exclusively by automobile.

Policy Emphasis

This plan sets forth a flexible, two-pronged approach as to the types of development preferred within the **General Urban Zone**. The first approach acknowledges the fact that there will continue to be demand for the type of post-war suburban development that has become the norm for much of Wake Forest over the past 40 to 50 years. Thus, relatively large lot, single family subdivisions will continue to play a role in meeting a major segment of market demand for housing in Wake Forest. At the same time, the Town wishes to encourage more *traditional neighborhood development* (TND) such as that associated with Holding Village. Obviously, the more new housing units that can be directed toward TND style, mixed use developments, the more the area will benefit from fewer cross-town automobile trips and traffic congestion on the Town’s few major thoroughfares. Regardless of whether a particular development is of the post-war suburban model or the traditional neighborhood model, the Town wishes to see more well-designed non-residential services and places of employment proximate to and well integrated with nearby residential development.

(3) Sub-Urban Zone

Description of Area Character

The **Sub-Urban Zone** includes developed and undeveloped land areas that do not currently have centralized sewer services, and are not likely to see such services for at least the next ten years. Lands within this classification are located in the northwestern and northeastern parts of town, where much of the area falls within the *Protected Watershed Areas*¹ of Wake Forest, and where there is a special concern for the water quality impacts of development. This area is distinctly suburban, and many instances, rural in character. Much of the area has not yet been developed for urban purposes. Existing residential developments in this area are predominantly large lot subdivisions for single family homes. These subdivisions range from small, single street enclaves to larger developments with circuitous streets and multiple cul de sacs. There are few significant commercial services located in these areas today.

Policy Emphasis

The policy emphasis for this area is very similar to the policy set forth for the **General Urban Zone**. The biggest difference relates to the timing of development. Whereas the **General Urban Zone** already has a full range of utility services in place, properties in the **Sub-Urban Zone** do not. While urban services could be extended to the **Sub-Urban Zone** within the next ten to twenty years, such extensions would generally be with greater difficulty and would encourage more dense growth within these protected watershed areas. In addition, not all properties within the **Sub-Urban Zone** are expected to be developed within the next twenty years. To do so would mean that development would leapfrog past many land areas in the Town that are already provided with the full range of services. The Town therefore does not encourage development in these areas ahead of properties in the town's more urban areas. Proposals for development in this area will be handled on a case by case basis, with consideration given to the proper and cost effective extension of public utilities as needed.

Note: This Community Plan has an approximate 20 year horizon. If new development were to occupy all vacant land in the Town Center, Urban and Sub-Urban Zones within the next twenty years, the Town would sprawl over an area at least three times larger than the present developed areas of town—and would result in more land consumption in two decades than in the previous two

¹ *Protected Watershed Areas* are certain land areas that have been designated for special protection under state law. Lands within these areas drain into existing or potential water supplies. These areas are acknowledged on this Growth Strategy Map due to their importance in preserving water resources in a water-constrained region. Developments proposed for sites within such watersheds must take special care to plan for low levels of environmental impact, particularly with regard to impervious surfaces, stormwater runoff, and ground and surface water protection.

centuries. This Plan advocates for the strategic use of land whereby the same number of future residents can be accommodated in compact developments on less land, allowing the preservation of appropriate open spaces in the community.

(4) Highway Corridor Zone

Description of Area Character

This, the largest commercial area of Wake Forest, is generally located along both sides of US 1, Capital Boulevard. Commercial establishments within the corridor can be quite large in scale, with ample parking, and near total dependence on automobile access. For many motorists passing through the Town, Capitol Boulevard is their most significant impression of Wake Forest. This corridor has many of the characteristics associated with a typical commercial strip found in many cities. Commercial developments tend to have brightly lit, prominent, free standing signs, numerous driveway cuts (though most are onto parallel service roads), extensive areas in asphalt parking lots, and relatively little natural vegetation or greenery. As such, the area does little to enhance Wake Forest as an “attractive historic community with small town charm”.

Policy Emphasis

The policy emphasis for the **Highway Corridor Zone** is to mitigate the adverse visual and functional impacts of strip development as concentrated within the corridor. This may include continued improvements in area signage and landscaping, the addition of sidewalks and bikeways (where appropriate) to encourage pedestrian and bicycle access, and to continue to work closely with area partners on the US 1 Corridor plan of improvement.

(5) Conservation and Flood Zone

Description of Area Character

The **Conservation and Flood Zone** includes two closely related sub-components; *wetlands* and *special flood hazard areas*. These are generally low lying areas adjoining the town’s several creeks and tributaries. Specifically, these wet, floodprone areas adjoin primarily Richland Creek, Smith Creek, Sanford Creek, and Toms Creek. The **Conservation and Flood Zone** is vitally important to the quality of the environment and safety of life and property. Wetlands filter stormwater runoff, protect water quality and through their absorptive capacities, help ward off flash flooding. Wake



Forest's 500-year floodplain receives and stores flood waters and, if left undeveloped, absorbs flood damage and prevents loss of human life and property. These two types of areas often overlap, providing for natural habitat for wildlife and important plant species. They also facilitate wildlife migration through the urban area. In recent years, these linear corridors have also shown promise as routes for human mobility, through the designation and establishment of greenways and associated trails.

Policy Emphasis

The purpose of designating the **Conservation and Flood Zone** is to provide for the effective long-term management and protection of important wetlands and floodprone areas. Generally, lands with the **Conservation and Flood Zone** should not be developed, or if developed, should be employed for wildlife propagation, open space, passive recreation, greenway trails, and other low impact uses. It is important to remember that the mapping of wetlands and floodplains in the **Conservation and Flood Zone** is done for general planning purposes only. In some instances, there may be pockets of supposedly wet or floodprone land included in the **Conservation and Flood Zone** that are, in fact, high and dry and non-floodprone. In other instances, there may be areas not included in the Conservation and Flood Zone that should be, based upon site-specific information. In such cases, the general mapping of the **Conservation and Flood Zone** can and should be superseded by site specific information made available during the land inventory or development process.

Implementing the Growth Strategy Map

The **Growth Strategy Map** is intended to be supported and complemented by zoning decisions, subdivision approvals, water and sewer extension policies, and other local growth management tools; these local tools should be consistent with the stated intent of the **Growth Strategy Map**. Although general areas are outlined on the **Growth Strategy Map**, it must be remembered that the map is only a tool to help implement policies and is not, in the strict sense of the term, a regulatory mechanism.

