Adopted by Wendell Board of Commissioners April 23, 2007

The Town Plan of Wendell

Building a Town for the Next Century

This Plan was prepared for:
The Town of Wendell, North Carolina

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Joe Pippin
George Knuckley
John Welch
Lesia McKenzie
Nora Cambier
Merle Lee
Nathaniel Montague
Gloria Crews
Elena Ortiz
George Hamrick

Planning Department Staff
Teresa Piner, Planning Director
Chris Hills, Planner
Stacy Griffin, Planning and Zoning Clerk

Consultant Team

THE LAWRENCE GROUP
TOWN PLANNERS & ARCHITECTS

Craig Lewis, AICP, CNU, LEED AP, Principal in Charge
Dave Malushizky, AIA, LEED AP
S. Chad Hall
John Cock, AICP
Beth Weast, Associate AIA, LEED AP
Amanda Huggins
Trey Akers

Kimley-Horn and Associates, Inc.

Matt Noonkester, AICP
Natalie Smusz Mengelkoch, PE

ROSE & ASSOCIATES SOUTHEAST, INC
LAND DEVELOPMENT & REAL ESTATE ADVISORY SERVICES

Kathleen Rose, CCIM

Henson-Harrington, Inc.
Landscape Architecture - Land Planning - Site Construction Documents

Tom Harrington, RLA

We would like to thank the Town of Wendell and the numerous citizens who participated in this exciting planning process. This effort is a reflection of the community's vision and serves as the foundation for a growing community. It is intended to guide the leaders of today and the visionaries of tomorrow.

Craig Lewis
Principal in Charge

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Statement of General Principles for the Town Plan

The Statement of General Principles is a summary of values used to guide the planning effort. These citizen-generated principles framed and directed the planning process and will provide guidance as the Plan is implemented.

1. **Preserve the small-town feel and historic character** of the community.

2. Protect and **enhance the strengths of the downtown core**, making the area a place to experience.

3. **Increase downtown and in-town retail, dining, and residential options**; likewise, continue the tradition of local business.

4. **Diversify and increase the per capita tax base.** Provide for a diverse workforce with a broad range of skills, making Wendell a more self-sustaining community.

5. **Promote Wendell's attractiveness** to business and people of all walks of life. Emphasize the strengths of the Town's diverse population.

6. **Provide for a range of housing opportunities** including upscale housing, senior housing, and downtown living choices.

7. **Increase community amenities** such as parks, schools, medical facilities, golf course(s), and higher education opportunities.

8. **Ensure local and regional transportation interconnectivity and options** while also maintaining and enhancing Wendell as a **walkable community**.

9. **Protect and preserve Wendell's natural resources** and amenities, including its streams, lakes, wetlands, and hardwood forests while **balancing private property rights.**

10. Ensure efficient provision of public services through **strategic location of schools, utilities, and public services.**

EXECUTIVE SUMMARY

Beginning in June 2006 and continuing through February 2007, planners and designers with The Lawrence Group, Rose & Associates, Southeast, Inc., Henson-Harrington, Inc., and Kimley-Horn & Associates, Inc. collaborated with the Town of Wendell staff, elected officials and citizens to develop a vision for the Town's 35 square mile planning area.

The Town commissioned the planning process to develop a comprehensive plan for the community's future growth, including land use, transportation and economic development. The Town's Board of Commissioners appointed a 15-member Advisory Committee to oversee the process. The Advisory Committee provided guidance and review throughout the process, including the development of the General Principles. Rose & Associates completed a market study to identify supply and demand for various types of development in the Town and to recommend appropriate development locations. From August 21-24, 2006, the community participated in a four-day public design workshop called a "charrette" to establish the community vision and develop the plan's primary recommendations.

The plan that resulted from the visioning effort focuses on six major topics, but encompasses all of the ten General Principles, including the overarching principle of "preserving the historic character and the small town feel of the community."

Framework Plan
First and foremost, the Plan establishes a framework for future land use and development in the Plan area over the next 20 years. The framework is based on the concept of the Rural-Urban Transect where development types and standards are associated with the surrounding land use context. The framework identifies land that is to be preserved and conserved for natural processes and open space; land that is appropriate for redevelopment and infill development; and areas where new development of various intensities should be focused. The Framework Plan also identifies where centers of commerce and employment should be located.

Downtown
The Plan includes detailed development recommendations for downtown Wendell. Wendell has a unique downtown and it holds a special place in the hearts and minds of its citizenry. The recommendations for downtown include a conceptual plan for nearly 200,000 square feet of new commercial and mixed-use development; nearly 150 housing units; a new town hall and library; and nearly 8 acres of public open space and parks, including a farmer's market on the Town Square. The recommendations also include specific infrastructure and marketing strategies for downtown.

Diverse Tax Base
Making Wendell's tax base more sustainable by promoting more job opportunities in the community is one of the major concerns of citizens and community leaders. The major economic development recommendation of this Plan is development of a business campus consisting of "qualified" office and industrial sites near the interchange of US64 and Wendell Boulevard. The Plan also recommends a number of marketing and promotion strategies for economic development.

Branding and Marketing
Related to the economic development strategies, the Plan recommends development of a new logo and brand identity for the Town.

Housing Choices
Citizens and community leaders intend for Wendell to offer a range of housing choices to current and future residents. The Plan includes recommendations for promoting housing of various types, locations, and prices in the Town. The Plan also includes conceptual neighborhood plans to serve as models for future residential development. The conceptual plans embody the principles of mixed-housing types, walkability, and incorporating neighborhood-serving civic, commercial, and open space. The plans also respect and embrace the natural and historic features of the land.

Transportation
Finally, the Plan includes a comprehensive analysis of the community's transportation system and makes recommendations for building on this system to achieve the Town's vision of efficient, multi-modal, and pedestrian-oriented access and mobility. Transportation recommendations range from the big picture future roadway network, including a Collector Street Plan, to more specific corridor and intersection level recommendations for walking, biking, transit, and motor vehicle movement. The Plan also includes very specific concepts for Wendell Boulevard's future design.

Implementation Strategies
The Town Plan and associated *Collector Street Plan*, when adopted, shall become Wendell's comprehensive land use and transportation plan. Future development and infrastructure investment decisions will be guided by the principles outlined in this Plan. The Plan includes more than 50 specific strategies for implementation and suggests priorities for each of these strategies. One of the most critical strategies is that the Town develop new zoning and subdivision standards to ensure that community vision for future land use and infrastructure laid out in this Plan are achieved. Furthermore, the Town and its stakeholders will need to commit resources and leadership to facilitate the implementation of the plan.

Key Principles of Sustainable Development

1. Mix Land Uses
2. Take Advantage of Compact Building Design
3. Create a Range of Housing Opportunities and Choices
4. Create Walkable Neighborhoods
5. Foster Distinctive, Attractive Communities with a Strong Sense of Place
6. Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas
7. Strengthen and Direct Development Towards Existing Communities
8. Provide a Variety of Transportation Choices
9. Make Development Decisions Predictable, Fair, and Cost Effective
10. Encourage Community and Stakeholder Collaboration in Development Decisions

Adapted from the *Principles of Smart Growth* - http://www.smartgrowth.org

INTRODUCTION

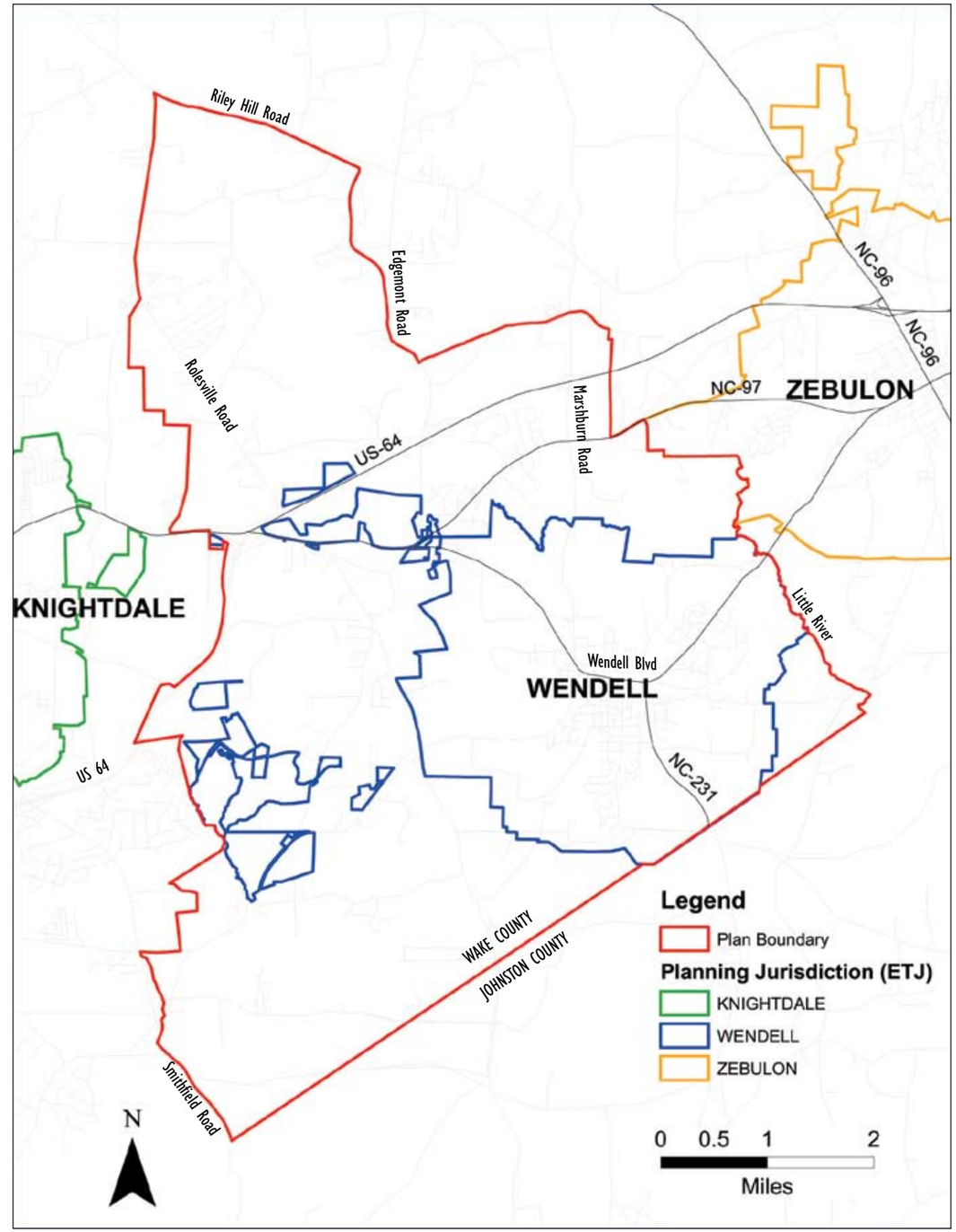
Plan Area
Plan Preparation
Existing Land Use Plan and Zoning
Existing/Projected Demographics
Development Projections
Market StudyPublic
Design Charrette
Public Input

PLAN AREA

The area for the Wendell Town Plan encompasses the Town's current municipal boundaries and extra-territorial jurisdiction (ETJ, shown in blue on the map at right) as well as the future urban service areas for the Town, which are represented in red on the map.

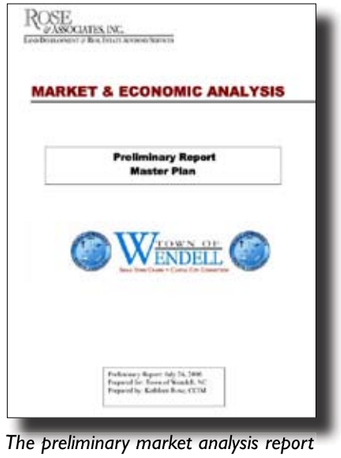
The Town's current ETJ is approximately 11 square miles. The Plan area represents approximately 35 square miles.

The urban service areas represent the Town's future annexation areas, as agreed upon with Wake County and neighboring municipalities. They also represent the areas where sewer and water service is likely to occur over time.



PLAN PREPARATION

The consultant team spent three months prior to the public design charrette gathering base data, meeting with community stakeholders, and preparing preliminary land use, transportation, and economic analyses and mapping. This effort included meeting with Town officials and the Town-appointed advisory committee, interviewing key stakeholders in the community and the surrounding area for the market study, as well as aseries of meetings with the Advisory Committee.

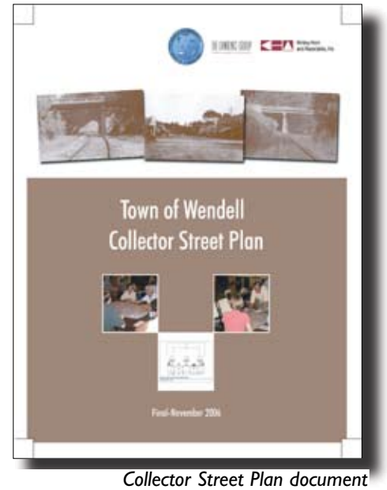


The preliminary market analysis report

The preliminary market study—including demographic data, demand-side analysis, and initial recommendations—was completed during this phase of the plan. These preliminary findings (noted in the Market Study section) were presented to the Advisory Committee in August prior to the charrette. The final market study was completed and delivered to the Town and the Advisory Committee in early November 2006.

The consultant team and the committee also participated in the preparation and review of the associated *Town of Wendell Collector Street Plan.* Staff from Kimley-Horn and Associates gathered and provided preliminary transportation data that was used during the charrette and in the development of the draft Collector Street Plan.

Kimley-Horn staff met with the Advisory Committee in October 2006 to present the initial draft of the Collector Street Plan and to receive comments. The final draft of the plan was presented to the committee in November 2006.



Collector Street Plan document

Advisory Committee

Prior to the public design charrette, the consultant team met three times with the Town Board-appointed Advisory Committee, a 15 member group of individuals representing a wide cross-section of interests and perspectives in the Town (see page 2 for a list of Advisory Committee members). The committee was comprised of representatives from the Planning Board and the Chamber of Commerce, business owners, residents, home builders, developers, homemakers, and retirees. Members represented both long-term Wendell residents and relative newcomers. The Advisory Committee's input and oversight guided development of the Plan both prior to the charrette and as the final Plan was prepared.

Advisory Committee members providing input on study area planning issues

At one of their initial meetings, the Advisory Committee provided extensive input on their vision for the community and issues that the community is facing. This input was used to develop the Statement of General Principles for the Town Plan, shown on page 4. Additional feedback from the Advisory Committee is listed in the Public Input Section.

Members of the Advisory Committee discussing the draft report

EXISTING LAND USE AND ZONING

Wendell's currently adopted Future Land Use and Zoning maps are shown below. The Land Use Map calls for the majority of the area to be built out with low- to medium-density residential development (shown in shades of yellow). The map also suggests a number of sizeable areas for industrial and commercial development, with "mixed-use" development specified for downtown and along the Wendell Boulevard corridor. Recommended locations for "Activity Centers" are shown with circles and corresponding letters on the map. These centers are based on the *Wake County Land Use Plan* definitions, which include:

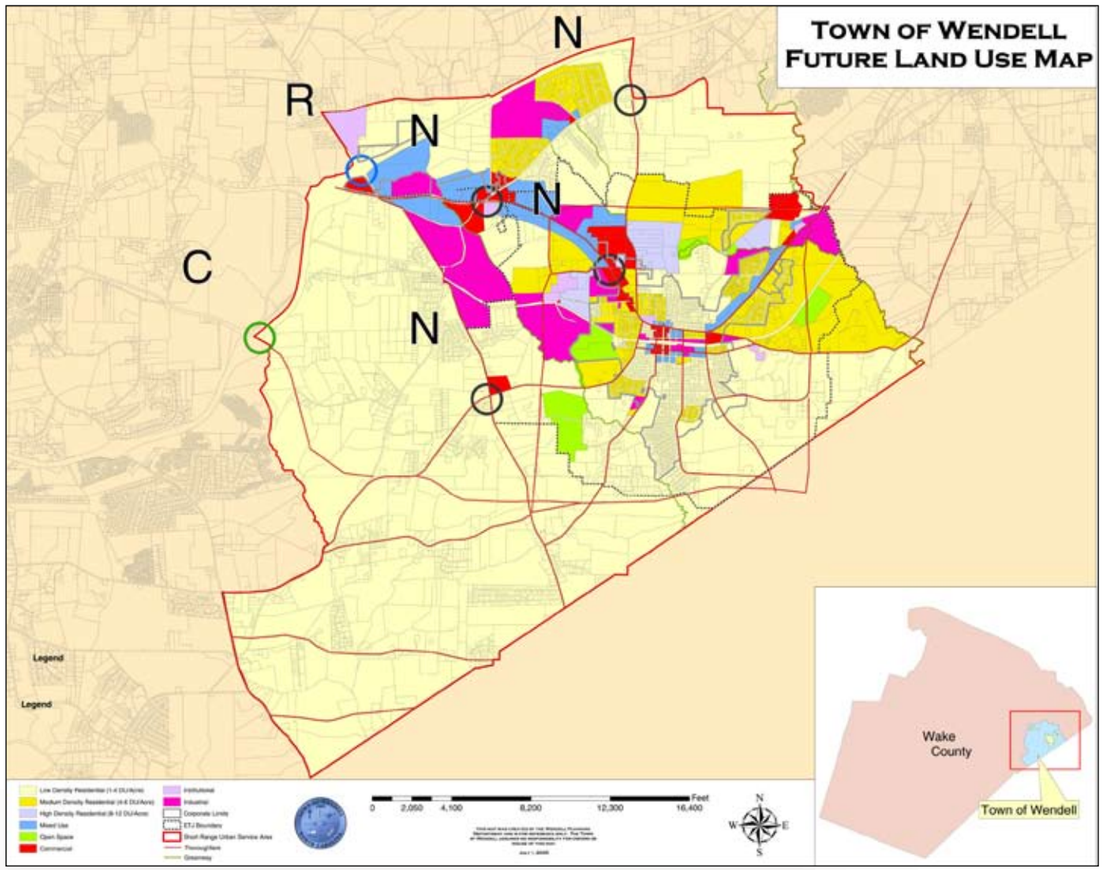
- Regional Activity Center (R): "A regional activity center should have a core containing relatively large-scale and high-intensity urban land uses that are are supported by and serve communities within the region. . .[including] regional shopping, . . .industrial parks, . . .employment centers, . . .and a wide variety of housing densities."

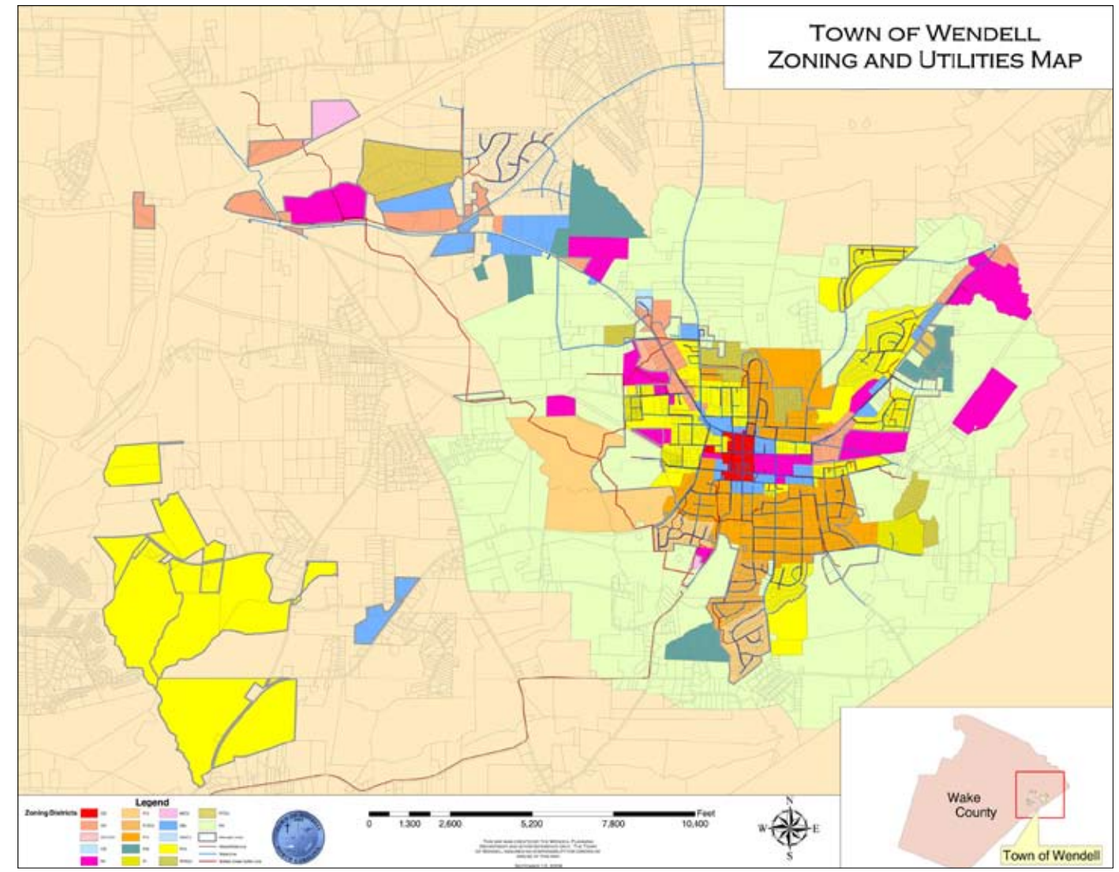
- Community Activity Center (C): "A community activity center should have a core containing relatively medium-scale development that focuses on serving the day-to-day needs and activities of the core area occupants as well as the greater needs and activities of the populations of adjacent neighborhoods."

- Neighborhood Activity Center (N): "A neighborhood activity center should have a core containing relatively small-scale development that focuses on serving the day-to-day needs and activities of the core area occupants and the population of the immediately surrounding neighborhood."

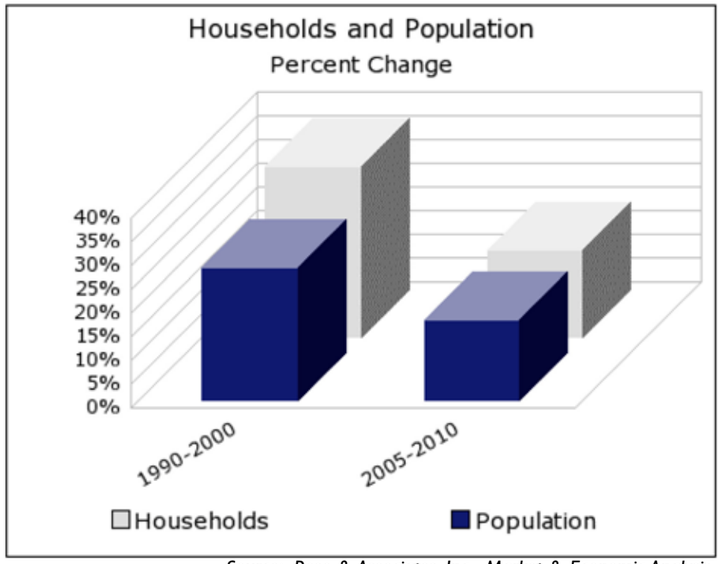
The recommended uses in these centers and their locations are similar to the centers (or nodes) recommended in this Plan and reflect historic and regional economic, land use, and transportation patterns.

The Zoning Map, which covers only those areas within Wendell's planning jurisdiction, shows a pattern similar to that recommended by the Land Use Map. The areas outside of the developed areas of the Town are zoned for low-density residential and agricultural uses. The town center is zoned for a mixture of development types, with higher density residential zoning, industrial, and some office and institutional zoning surrounding the downtown area. Wendell Boulevard is zoned for a number of different uses including highway commercial, industrial, office and institutional, and residential, reflecting the variety of land uses found on the corridor today.





EXISTING/PROJECTED DEMOGRAPHICS



Source: Rose & Associates, Inc. Market & Economic Analysis

Population and Households

The Town's population increased by 28% between 1990 (3,314 persons) and 2000 (4,247 persons). The population in 2005 was 5,111 and the projection for 2011 is 6,566 representing a change of 25%, which is a greater increase than seen on the Metropolitan Statistical Area (MSA) or county level.

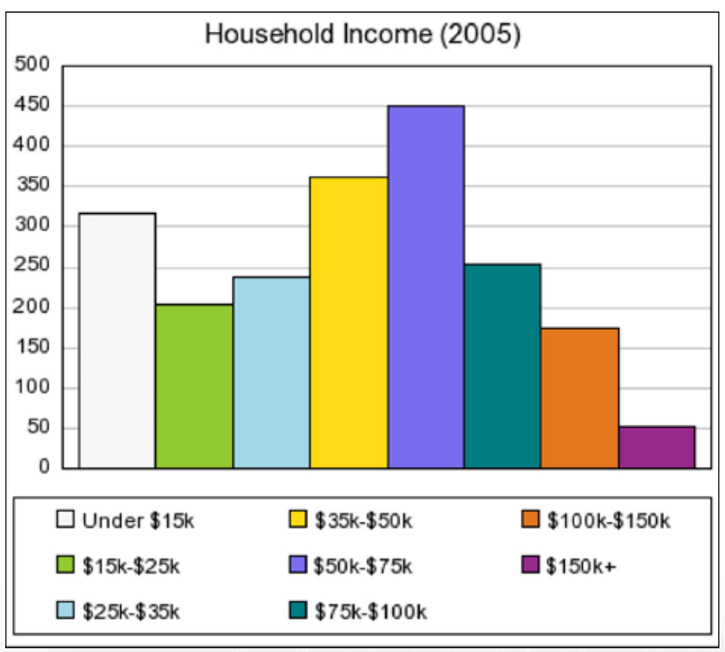
The number of households in the Town increased by 36% between 1990 (1,233 households) and 2000 (1,675 households). The household count in 2005 was 2,053 and the household projection for 2011 is 2,572, a change of 25%. (See following page for additional discussion of population projections.)

2005 Demographic Estimates	
Population	5,111
Households	2,053
Population by Race/Ethnicity	
White	72.16%
Black	21.68%
Hispanic	7.92%
Asian or Pacific Islander	0.97%
American Indian, Eskimo, Aleut	0.32%
Owner-occupied Housing Units	66.2%
Renter-occupied Housing Units	26.0%
Vacant Housing Units	7.8%
Average Household Size	2.47
% in Residence 5+ Years	35.0%

Source: Rose & Associates, Inc. Market & Economic Analysis

Household Income

In 2005, the predominant household income category in the study area was $50K -$75K, and the income group that was least represented was $150K or more. However, the table below indicates that the community is projected to become more attractive to a broader range of income categories with more households in the higher income categories than in previous periods.



Source: Rose & Associates, Inc. Market & Economic Analysis

	1990 Census		2000 Census		2005 Estimate		2010 Projection		Percent Change	
Household Income	# of households	%	# of households	%	# of households	%	# of households	%	1990 to 2000	2005 to 2010
$0 - $15,000	339	27.5%	280	16.7%	316	15.4%	346	14.2%	-17.6%	9.4%
$15,000 - $24,999	177	14.3%	180	10.7%	205	10.0%	219	9.0%	1.7%	6.9%
$25,000 - $34,999	185	15.0%	228	13.6%	238	11.6%	260	10.7%	23.2%	9.2%
$35,000 - $49,999	293	23.8%	335	20.0%	362	17.6%	367	15.1%	14.3%	1.2%
$50,000 - $74,999	165	13.4%	333	19.9%	451	22.0%	540	22.2%	262.4%	19.7%
$75,000 - $99,999	59	4.8%	195	11.6%	253	12.3%	280	11.5%	228.5%	10.5%
$100,000 - $149,999	10	0.8%	101	6.0%	175	8.5%	303	12.5%	898.9%	73.3%
$150,000 +	0	0.0%	23	1.4%	53	2.6%	114	4.7%	N/A	115.1%
Average Household Income	$32,137		$47,678		$51,873		$57,707		48.4%	11.2%
Median Household Income	$28,858		$41,987		$45,746		$51,010		45.5%	11.5%
Per Capita Income	$12,201		$18,803		$20,976		$23,596		54.1%	12.5%

Source: Rose & Associates, Inc. Market & Economic Analysis

DEVELOPMENT PROJECTIONS

There are currently more than 5,000 units of housing proposed or under construction within Wendell's jurisdiction. The map and table below show the location of the current proposed developments in the study area; their approval status; the number of lots proposed in each; and the estimated number of persons that each development will house based on an average 2.53 persons per household. The large area on the far western edge of the study area is the proposed Wendell Falls development.

Rose & Associates utilized demographic data from ESRI/STDB, a known and respected source of data, to develop five-year population projections for Wendell. Building on US Census data collected from 2000 and 2005, projections are derived from current events and past trends that are captured in annual updates. ESRI revises its projections annually to draw upon the most recent estimates and projections of local trends. Forecasting begins at the County level with several sources of data. In addition to US Census data, ESRI also analyzes the number of building permits and housing starts over time, as well as residential postal delivery counts.

While the regional economy is healthy and appears to be on track for continued growth, population projections are based upon a number of factors including inflation, job growth and other economic factors. Building permits for the Raleigh MSA show a downward trend, consistent with most markets nationally. Projections for five-year population growth for the MSA, Wake County and Wendell are 12%, 14% and 17% respectively, reflecting trends in Eastern Wake County. Wendell represents less than 10% of the regional market.

Given the regional factors cited above and the Town's current housing inventory, sales activity and construction permitting history, this Plan does not expect that Town will exceed the current stated 2011 projections of approximately 6,500 people. While there are more than 5,000 housing units currently planned in Wendell (see below); and while the Town permits 100 units per year on average, actual housing construction and *sales* of units determine population growth. Wendell Falls, for example, would need to meet or exceeds sales of eight units per month (the current average sales per project for new construction in the MSA is three units per month) to yield 96 occupied housing units per year.

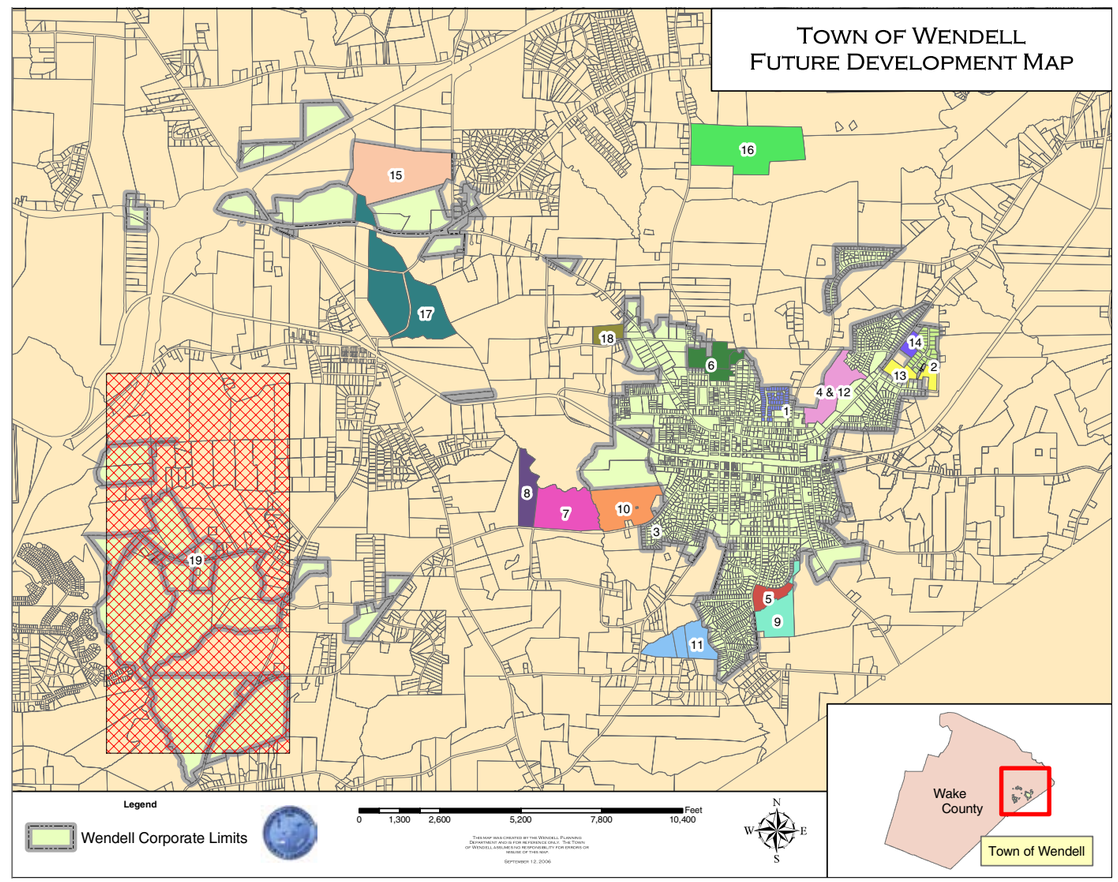
Town of Wendell Recent and Pending Subdivision Approvals (as of December 2006)

Map #	Subdivision Name/Location	Status	Lots	Est. Population
1	Pepper Pointe	In Construction	9	23
2	Olde Wendell (Phase I)	In Construction	8	20
3	Jones Landing	In Construction	0	0
4	Woodlands at Timberlake (Phase I)	In Construction	19	48
5	Groves at Deerfield (Phase I)	In Construction	16	40
6	Brighton	In Construction	70	177
7	Foxbourogh Crossing	Final Construction Drawings	92	233
8	Ironcrest	Final Construction Drawings	30	76
9	Groves at Deerfield (Phase II)	Final Construction Drawings	123	311
10	Baptist Foundation	Sketch Plan	84	213
11	Woods of Blair Hills	Final Construction Drawings	53	134
12	Woodlands at Timberlake (Phase II)	In Construction	46	116
13	Olde Wendell (Phase II)	Sketch Plan	20	51
14	Olde Wendell (Patio Homes)	Sketch Plan	29	38
15	Edgemont Landings	Preliminary Plat Approved	272	688
16	Unnamed Marshburn Rd. Subdivision	Sketch Plan	150	380
17	Anderson Plantation	Sketch Plan	200	506
18	Liles Dean Townhomes	Sketch Plan	50	127
19	Mercury/Pulte (Wendell Falls)	PUD Approval/Pre Plat	4,000	10,120
	Total		5271	13,300

Source: Town of Wendell

Using updated 2006 population estimates provided by the Town's Planning Director, should the population in 2006 of 5,253 grow at a rate of 25% over five years to 6,566 in 2011, this would add 1,313 new people, which at 2.53 persons per household, would require construction and sales of approximately 519 new households over the next five years.

Year	Population	Source
2005	5,111	Census
2006	5,253	Town of Wendell
2011	6,566	projection



MARKET STUDY

The following is excerpted and adapted from the Economic and Market Analysis — Final Report, Wendell Master Plan *("Market Study") completed by Rose & Associates, Inc., available as companion document to this plan. The intent of this section is to provide a professional analysis of the types of development that are realistic for Wendell over the next five years based on market trends and projected population growth. This information was used in framing appropriate development recommendations during the planning process and provides the basis for Plan recommendations that are elaborated on and conceptualized in later sections. The complete Market Study document, including associated background data and appendices to support the conclusions below are available through the Town's Planning Department.*

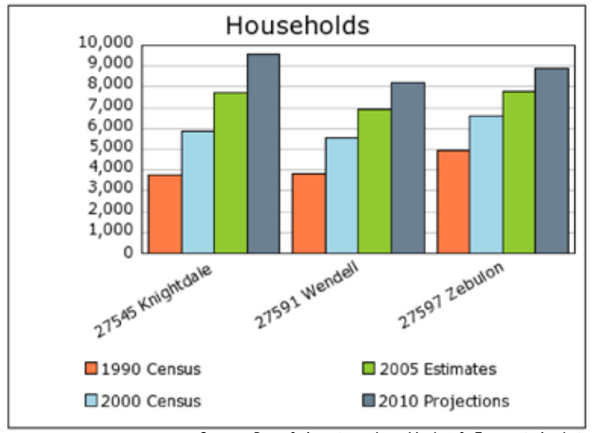
Rose & Associates Southeast, Inc. was retained by The Lawrence Group to complete an Economic and Market Analysis for the Town of Wendell ("Study Area"). The purpose of analysis is to evaluate the Study Area and related data including, but not limited to, demographics, zoning, infrastructure, market issues, and politics.

To put the Economic and Market Analysis into perspective, we must look at Wendell's position within the region. There has been a resurgence of investment in downtown Raleigh with the announcement of over $1 billion in new or expanded private and public facilities. Further, initiatives by the Wake County Economic Development Commission and the Greater Raleigh County Chamber of Commerce focused on biotechnology clusters have resulted in announcements for new facilities, including the recently announced Novartis vaccine facility in Holly Springs. This growth and investment will create synergy to drive opportunities in Wendell due to its affordability, location and accessibility—within an easy 20-minute commute to Raleigh via the new Highway 64 Bypass.

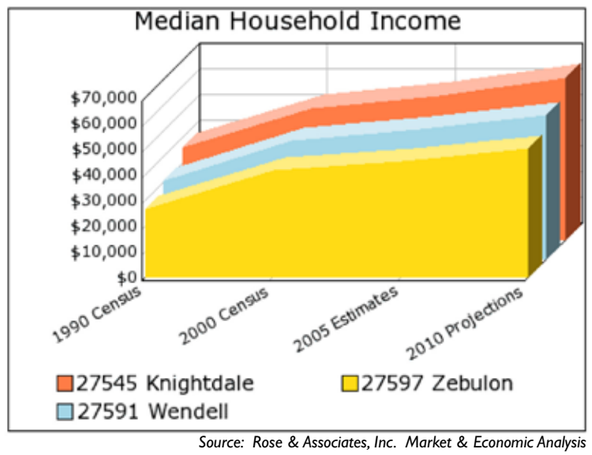
Competitive Advantages

To understand its position in the regional marketplace, and opportunities or challenges to attract particular uses, Wendell was compared to its neighbors, Knightdale and Zebulon. In terms of households and income, it ranks equal to or in between these two communities. Knightdale having greater population, income, traffic volumes and potential growth has resulted in greater retail development as operators cluster around primary anchor tenants such as Target and Wal-Mart. Zebulon is located farthest east in the county, and is less developed. While it's tax rate is the highest of the three communities ($0.54 per $100 valuation in Wendell compared to $0.50 per $100 in Zebulon and Knightdale), Wendell's competitive advantages include:

- Housing affordability;
- Accessibility to area job market and Raleigh's downtown;
- Low crime rate, being viewed as a safe community;
- An established downtown;
- Active Parks and Recreation program and excellent schools



Source: Rose & Associates, Inc. Market & Economic Analysis



Source: Rose & Associates, Inc. Market & Economic Analysis

Factors Impacting the Market & Land Use in the Study Area

Regional Development Patterns

Development patterns have spread from the downtown area of Raleigh to the outlying areas along primary transportation corridors. Land use has focused higher density, urban, commercial and mixed-use development from the urban core out along the primary corridors of Interstates 40 and 440; and Highways 70, 401, 64, 54 and Route 1. These areas underscore the importance of land use planning to provide transitional areas between primary regional clusters of business/employment, retail centers and recreation. Quadrants between these primary centers of influence have been rapidly developed for housing to serve the economic expansion of the Raleigh MSA.

Transportation

The regional transportation network is firmly in place, providing access from other areas of the state and southeast region. The network is multimodal including highways and rail. Now, the challenge is to provide an internal network within the Study Area that connects in and around the highway and rail corridors, while defining the community's boundaries and character.

Economic Development

Wendell is competitively situated at the eastern edge of Raleigh, the state capital and heart of the MSA. The North Carolina State Department of Commerce is divided into seven regions and regional partnerships, including the Research Triangle Region. The Research Triangle Regional Partnership includes 13 counties that surround Raleigh and the Triangle. In Wake County alone, the Partnership currently offers 100 certified (or qualified) sites ranging in size from 0.82 to 350 acres for economic development. Additionally they are marketing approximately three million square feet of industrial/flex space in 48 buildings throughout the county. According to the Partnership, there are currently too few qualified sites available in the region and none in eastern Wake County.

Framework Strategies

A number of observations were made during preliminary review of the Study Area, demographic data and during interviews/meetings with the Advisory Committee, Town staff, economic development officials and other stakeholders. These observations suggest a three-pronged strategy for land use and economic development that compliments Wendell's slogan of "Small Town Charm—Capital City Connection."

The three-pronged strategy includes:

1. Develop and enhance mixed-use nodes to provide community centers for commerce, employment, housing, and community interaction

Given the Study Area's location within the region and transportation issues, the concept of nodal development should be incorporated into the overall plan. This will provide centers of activity for commercial and high-density uses around core intersections. This

is an alternative to the otherwise sprawling effect that can occur when commercial development evolves along primary corridors. Recommended node locations for the near term (0-5 years, based on current population and projected population) should include:

- A Gateway node is recommended around the interchange of the Highway 64 Bypass and Wendell Boulevard. This area may provide highway commercial uses, mixed-use development and employment opportunities.

- A Town Center node is recommended at the primary intersections of downtown, which should form the nucleus of destination-oriented commerce. This node will provide areas of shopping, specialty retail uses, restaurants, medical services and other ancillary professional offices.

- A Neighborhood node is recommended at Highways 64 and 231 (Wendell Boulevard at Selma Highway), connecting the neighborhoods in the eastern and southern quadrants to downtown. This area provides opportunity for convenience-oriented services, such as grocery-anchored retail and professional office uses.

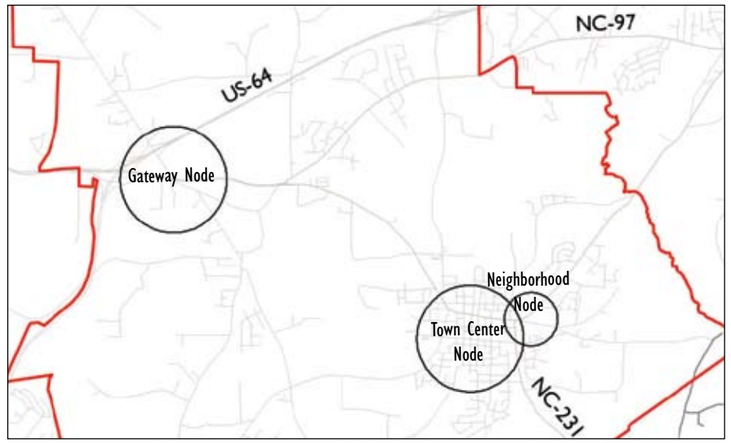
[Note: Other node locations will become viable as population and economic growth continue beyond the five-year time horizon of the market study. The characteristics of the nodes described here will also apply to future nodes of a similar type and scale. Future node locations are recommended in the Framework Plan section of this report.]

2. Establish economic development strategies to provide tax base and job creation.

- Knightdale, Zebulon and Wendell should consider a visioning process that supports economic development efforts by identifying those things that differentiate them individually, while branding and marketing them regionally. Projected growth throughout the entire Raleigh MSA will continue to place development pressures in all areas, therefore the competitive advantages of Wendell and surrounding towns become critical factors. Communication of a unified vision for business growth, including benefits, and inter-jurisdictional collaboration is encouraged to support congruent development patterns and avoid internal competition within the region.

3. Create strategies for diversifying housing stock.

- Wendell presents an opportunity to create a mix of housing types/ styles including a variety of housing product in a wider range of prices to serve young professionals, singles, empty nesters, retired couples, individuals, and families.



Near-term node locations recommended by the Economic and Market Analysis Report

- Multifamily (density in a range between 10-16 units per acre), primarily within Gateway node and along Wendell Boulevard, connecting the Gateway to the Town Center is recommended. Attractively designed apartments and/or townhomes/ condominiums would provide harmony with the adjacent single-family neighborhoods and an appropriate transition between future commercial uses. Transition to low-density single-family housing (2-6 units per acre) in areas adjacent to existing neighborhoods is also recommended.

- A mix of residential types in all market segments (affordable to moderate, in both rental and for-sale housing) should be considered.

- Careful attention should be given to creating pedestrian and vehicular connections between recreational, residential and commercial areas.

Development Recommendations

The synthesis of the information compiled both prior to and during the charrette supports the following recommendations. The identified demand for office, industrial, and retail development is based upon demographic trends and population growth estimates. Population growth is driven by job growth. Despite its lag in manufacturing, the Raleigh region's post-9/11 recovery has been driven by job growth in education, healthcare, government, and emerging high-tech industries.

Office (Medical, Professional)

- Gateway & Town Center Node(s): Office buildings from 1-4 stories; floor plates/footprints from 10,000–20,000 square feet, clustered around a primary intersection/block. Qualified sites should be created in the Gateway node for build-to-suit opportunities versus speculative development.

- Neighborhood Node(s): Residential scale office buildings from 1-2 stories; floor plates/footprints from 1,500–5,000 square feet situated in a village environment, clustered around service/ convenience-oriented retail at a primary intersection.

Industrial (Light Assembly, Warehouse, Service, Flex)

- Gateway Node(s): Given its location and accessibility, moderate scale light industrial, warehouse, service and flex space in a business park or campus configuration with building floor plates/ footprints of up to 200,000 square feet may be supported. These types of buildings are characteristically built with approximately 5-10% being an office component with the remaining space open for manufacturing, warehouse, assembly or distribution of a variety of goods. The office/flex space market continues to grow as the lower cost alternative to traditional Class A office space.

- Wendell has the potential for positioning and branding an affordable, yet high-tech/"cutting edge," business park/campus, through entrance improvements and a marketing strategy. The business campus should be developed in the format of a qualified sites program, with sites ready to build for owner-occupied (user) construction and build-to-suit development.

There has been very limited speculative new industrial space entering the regional market over the past few years. However, the opportunity to develop spaces for new industries requiring specific designs is possible, therefore most of the development in this sector will be build-to-suit projects targeted for specific users. The opportunity for Wendell lies in its potential to provide qualified sites at competitive values for the development of build-to-suit facilities for the cost-conscious companies seeking new office or industrial space.

Retail

Current traffic counts within the Town are well below the threshold for many retail operators, especial national retailers. Additionally, threshold populations within the trade areas of the identified nodes also fall short for many retail opertations. Furthermore, the predominance of national and regional retail operators in

neighboring communities such as Target and Super Wal-mart will preclude the development of many categories of retailers in Wendell. However, the existing housing combined with the planned/proposed additional permitted units of housing will create the need in the future for neighborhood shopping and convenience-oriented retail to serve the local population and commuting traffic. Convenience-oriented retail can include restaurants, food/gas, dry cleaning, drug stores, office supply stores, etc.

- Town Center Node: Being the heart of the community, the Town Center should provide a catalyst for destination-oriented specialty retail (e.g., Kannon's Clothing), restaurants, art galleries, and other venues for culture and entertainment. This should be mixed with office and other services, whose employees will provide additional daytime traffic for retail operators and restaurants. Commercial/retail uses of up to 100,000 square feet may be supported when threshold population is established in the downtown core.

- Gateway Node: Limited convenience-oriented retail, such as convenience stores and restaurants.

- Neighborhood Node: Neighborhood shopping on a smaller scale of up to 75,000 square feet in a village cluster. Typically, a neighborhood shopping center provides the services needed for area residents, commuters and employees. An example of this is the grocery-anchored center, which will accommodate ancillary services.

Residential

With a projected oversupply in single family and multi-family housing units in the Raleigh MSA, factors on the local level will determine housing demand based upon location, pricing/value and quality of life factors. With oversupply, the issue of absorption comes into focus, as competition increases between home builders and sellers of existing housing. (The rate of absorption refers to the speed at which available housing units are purchased or rented.) Wendell should use caution with adding new housing rapidly to the market.

The rate of absorption becomes important when determining not only how much additional housing should be built, but more importantly, when it should be built. When comparing job estimates to population growth, there are segments of market demand that are not tied to the job market. These include self-employed, unemployed (such as students, seasonal homeowners) and empty nesters and/or retired persons/families entering the housing market. Therefore, absorption of new housing units should take this into consideration, as well as the ratio of permits to population.

Residential Gap Analysis for Raleigh MSA

Factors	Inputs/Results	Comments/Assumptions
Forecast MSA job growth (basic jobs)/year	1,400 basic jobs	*Basic jobs export goods, services outside the region*
Total job growth	20,818 jobs	*basic jobs x 14.87 (economic base multiplier for MSA)*
Population to Employment (P/E) Ratio	2.18	*number of population per employee*
Projected population growth	45,383 persons	*job growth x P/E ratio*
Persons per household (pph)	2.60 persons	*2000 US Census average household size*
Total potential new demand for housing	17,455 households	*population/pph*
Supply for housing	19,734 units	*Est. housing units planned/permitted*
Gap: supply-demand	**2,279 units**	**(oversupply)**
Demand for single-family (SF) housing	13,091 units	*75% of housing market*
Supply for SF housing	14,176 units	
SF Gap (supply-demand)	**1,085 units**	**(oversupply)**
Demand for multi-family (MF) housing	4,364 units	*25% of housing market*
Suppy for MF	5,558 units	
MF Gap (supply-demand)	**1,194 units**	**(oversupply)**

Synthesis of the information regarding residential development concludes:

- Single Family: The demonstrated oversupply of single-family homes [in the region] merits caution with respect to adding additional product to the market until such time as demand is created and the infrastructure is available to support it. Most of the housing stock and sales in Wendell is in the $150,000 price range. Therefore, a mix of housing in other price categories that can be competitive is recommended.

- Multi Family: Wendell presents an opportunity to create a variety of higher density housing in a wide range of prices at the proposed nodes, particularly in the downtown. "Urban residential" should represent a variety of product types to serve young professionals, empty nesters, retired couples and individuals, as well as families. Added population in the downtown will provide additional support to commercial uses, such as restaurants.

- Multifamily absorption is attributed to projected job growth in a stable occupancy environment. However, due to current above average apartment vacancies in the MSA and planned mixed-use development incorporating multifamily housing (Wendell Falls), the status of the supply in the marketplace is not clear. Additionally, the historically low interest rates have made single family home buying more affordable for the population at large. These two facts should be considered as the multifamily product, both for rental and ownership, is planned in Wendell.

- Downtown/Urban Housing: The key to creating a vibrant downtown is to have activity 24 hours/day, 7 days/week. Many downtowns heavily weighted with business uses are active only during standard business hours, five days per week. Therefore, to create a vibrant downtown, in addition to drawing employees, local residents and visitors, housing must be part of the equation to attract residents who can live, work, shop and recreate in the downtown.

- Absorption: Based upon permit activity and interviews with local builders and realtors, it is estimated that two to three units per month are being absorbed for new market-rate (non-subsidized) housing units, however, the majority of that product is traditional single family housing. The potential demand within market segments and introduction of new product type should easily meet, or exceed, absorption of two to three units per month. With the transition to a broader variety of housing product offerings, it is expected that new housing should be absorbed at a reasonable pace, consistent with job growth in the region.

Public/Civic Space

- Public Space: There is an opportunity to create attractive recreational/public spaces within the Town Center and in pocket and/or linear parks within the nodes and neighborhoods, providing a buffer between residential and commercial areas. Connections to open space, conservation land and the existing park(s) are important to provide vistas and amenities for both residential and commercial projects.

- Civic: Given the large number of residential housing units planned in the Wendell Falls project and other new developments, facilities for safety services (i.e., police, fire, ambulance) should be incorporated in areas within or adjacent to these nodes.

PUBLIC DESIGN CHARRETTE

The consulting team used a four-day public planning and design workshop called a "charrette" to guide the Wendell Town Plan process. This effort began with a public kickoff meeting on the evening of August 21, 2006 consisting of an opening presentation and an interactive workshop with area residents and stakeholders.

Following the kickoff meeting, the consulting team facilitated the public design charrette from August 21–24, 2006 in the Wendell Community Center. A temporary design studio was set up in the Community Center gymnasium complete with design tables, meeting areas, computer equipment, and a presentation area.

Dozens of citizens, business and property owners, agency representatives and public officials attended this comprehensive planning workshop during the four-day period. The consultant team held formal meetings with specific stakeholders to discuss various topics related to the area's future including: transportation, infrastructure, schools, recreation, land development, utilities, economic development, and public safety. At the same, the team's designers and transportation planners worked on concepts for the Plan area in the open design studio and met informally with dozens of citizens who dropped in to observe and comment on the charrette progress.

The charrette concluded with a full digital presentation of the plan's recommendations. The vision for the area, which will be used to guide Wendell's future growth, is based on the consensus gained by the area's interested residents and stakeholders, elected officials, staff, advisory committee members, and the consultant team during the course of the charrette.

The consultant team at work in the design studio

Charrette participants reviewing Plan recommendations

Participants at the kick-off meeting

Residents at the closing presentation

Wendell Town Plan
Charrette Schedule

MONDAY, AUGUST 21st

10:00 Arrival – Tour of Study Area/Studio set up

DESIGN STUDIO OPEN

3:00 Meet with Planning Staff

5:00 Dinner with Elected Officials and Advisory Committee

7:00 Public Kick-off Presentation and Facilitated Workshop

TUESDAY, AUGUST 22nd

DESIGN STUDIO OPEN

9:00 Recreation Dept: Director, Brinkley Wagstaff

10:00 Utilities: Ron Horton, City of Raleigh; Mark Tallent, Wendell Public Works Dept.; Pat Newton and Marty Clayton, Progress Energy

11:00 Fire/EMS: Fire Chief Tom Vaughan; EMS Chief Garland Tant

1:00 Police Chief Joe Privette

4:00 Chamber of Commerce Director Ula Mae Life

5:30 PIN UP SESSION

8:00 Historic Commission

WEDNESDAY, AUGUST 23rd

9:00 Developers/Builders: Lucius Jones, Johnny Watson, Carlos Alvarez, Greg Ferguson

DESIGN STUDIO OPEN

1:00 Property/Business Owners: Dean Castleberry, Paul White, Matt Sirois from Gallery Café, Dr. Mark Varady, Frances Henderson,

2:00 Transportation: NCDOT, Reid Elmore; CAMPO, Jake Petrosky

3:00 Wake County Schools: Betty Parker, Christina Lighthall

4:00 Tim Burgess, Town Manager

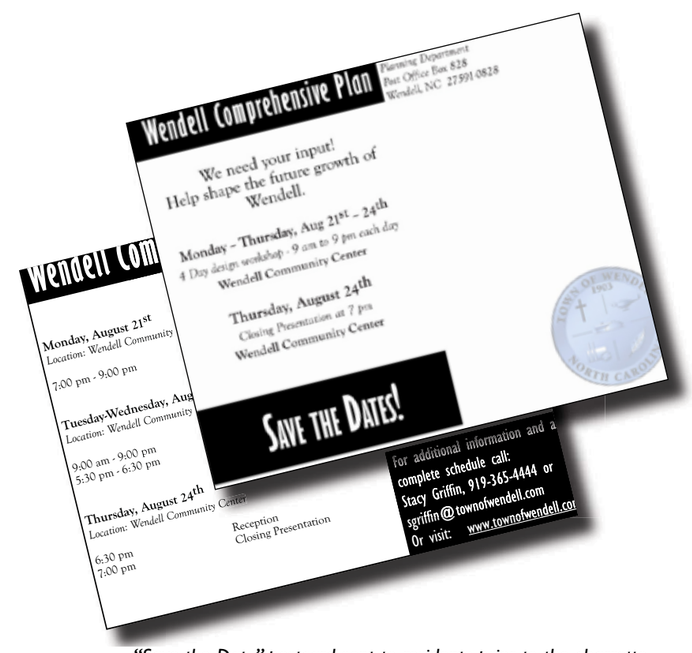
5:30 PIN UP SESSION

THURSDAY, AUGUST 24th

DESIGN STUDIO OPEN

6:30 RECEPTION

7:00 CLOSING PRESENTATION



"Save the Date" postcard sent to residents prior to the charrette

PUBLIC INPUT

Public input is crucial to the success of any public planning effort and is critical to the functioning of the charrette process. Citizens and stakeholders provide guidance to the plan, determine priorities, and ensure successful implementation strategies by illuminating the public's vision for the community. As a result, the Plan reveals areas of public consensus on important community topics. Public input also establishes community buy-in to the plan, which ultimately gives the Plan momentum and political relevance after the Plan process is complete.

Participants providing input during charrette process

Public input on the Town Plan was gathered through an Advisory Committee, through a community survey, and through feedback received from citizens and stakeholders during the public design charrette.

In general, consensus sentiment from the public input revealed that success for the Plan hinges upon preserving the small town feel and historic character of Wendell. Citizens also strongly believe that Wendell needs new development—in the form of job creation, increased housing choices, and retail and dining options—as well as transportation choices, and community amenities. Many desire that an important portion of new growth occur in the downtown area.

Advisory Committee Feedback

At an early meeting, Advisory Committee members shared their list of positives and negatives about the Town's existing conditions and then described their vision for the future of the Town. These responses, provided the basis for developing the Statement of General Principles (listed on page 4), a framework that establishes the guiding foundations for the plan's development.

Positives (Wendell's Strengths)

- Family place
- Diverse religious community; Churches
- Downtown
- Visually appealing streetscapes
- Family commerce
- "Experience"
- Small town atmosphere
- Walkability
- Historic homes (Wendell Blvd., Cypress St.)
- Quiet place
- Good police department (low crime)
- Uniqueness
- Large businesses that have been enduring
- Safety
- Park with community center/recreation programs

Negatives (Wendell's Weaknesses)

- Lack of in-town commerce
- Lack of diversity in both housing choices/types
- Lack of diversity in public participation/visibility
- Lacking in workforce diversity—not a broad range of skill levels existent in-town.
- Best kept secret in Wake County

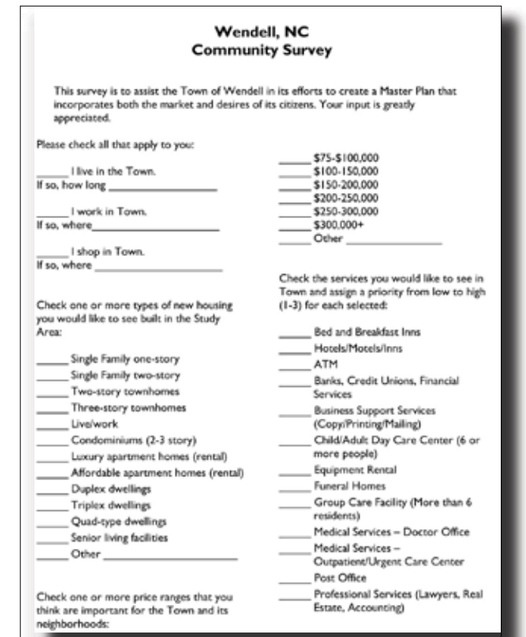
Vision for Wendell

The Advisory Committee also discussed their vision for the community's future as well as the major impediments to achieving this vision. The committee revealed these aspirations for the town:

- Increase and diversify the municipal tax-base through job creation and higher-end residential options.
- Bring commerce into Wendell, specifically downtown. Create a blend of (local) business opportunities that will serve a variety of people—practical and everyday places that are modern, coupled with a few upscale establishments.
- Preserve historic town character in the midst of change.
- Generate a diverse workforce with a broad range of skills, making Wendell a self-sustaining community—a place where people can both live and work. In addition, provide the supportive community services needed to make this happen (e.g., schools, medical facilities).
- Keep town inter-connected through transit systems and walkability.

The Advisory Committee also identified issues that would have to be overcome to achieve these visions for Wendell:

- Inability to attract growth to Wendell due to geographic location, infrastructure, and lack of knowledge concerning Town's historic downtown commercial district.
- Failure to increase the tax-base due to a lack of business-generating partnerships.
- Mismanagement of land-uses that prevents a diversity of housing opportunities.
- Fear of change.



Wendell, NC
Community Survey

This survey is to assist the Town of Wendell in its efforts to create a Master Plan that incorporates both the market and desires of its citizens. Your input is greatly appreciated.

Please check all that apply to you:

_____ I live in the Town.
If so, how long _____

_____ I work in Town.
If so, where_____

_____ I shop in Town.
If so, where _____

Check one or more types of new housing you would like to see built in the Study Area:

_____ Single Family one-story
_____ Single Family two-story
_____ Two-story townhomes
_____ Three-story townhomes
_____ Live/work
_____ Condominiums (2-3 story)
_____ Luxury apartment homes (rental)
_____ Affordable apartment homes (rental)
_____ Duplex dwellings
_____ Triplex dwellings
_____ Quad-type dwellings
_____ Senior living facilities
_____ Other _____

Check one or more price ranges that you think are important for the Town and its neighborhoods:

_____ $75-$100,000
_____ $100-150,000
_____ $150-200,000
_____ $200-250,000
_____ $250-300,000
_____ $300,000+
_____ Other _____

Check the services you would like to see in Town and assign a priority from low to high (1-3) for each selected:

_____ Bed and Breakfast Inns
_____ Hotels/Motels/Inns
_____ ATM
_____ Banks, Credit Unions, Financial Services
_____ Business Support Services (Copy/Printing/Mailing)
_____ Child/Adult Day Care Center (6 or more people)
_____ Equipment Rental
_____ Funeral Homes
_____ Group Care Facility (More than 6 residents)
_____ Medical Services – Doctor Office
_____ Medical Services – Outpatient/Urgent Care Center
_____ Post Office
_____ Professional Services (Lawyers, Real Estate, Accounting)

Copy of the Community Survey (page 1 of 2)

Community Survey

The project team distributed a community survey to charrette participants, posted the survey on the web, and placed copies at various public venues in the Town. A total of 37 surveys were returned. (See the Market Study document for further discussion of the survey.)

The survey responses confirms many priorities found in the Statement of General Principles:

- *Range of housing choices:* The survey participants desire a greater range of housing options in the community, with single-family, town

homes, condominiums, luxury apartments, and senior living facilities all receiving a significant number of votes. Senior citizens, which represented the most active and vocal sub-group during the charrette, conveyed the need for senior housing choices. Their category not only gained the most votes for housing product but their desires for downsized residences bolstered totals in the town homes, condominium, and luxury apartments categories—showing that citizens want to live, work, and retire in Wendell.

- *Broader range of housing price options:* Survey participants also desire a broader range of housing price options, with the majority of respondents indicating a need for housing between $100,000 to $300,000. Interestingly, a significant number of respondents chose the higher end of the range, indicating a desire for housing more expensive than most of the product currently available in Wendell.

- *Desired Services and Amenities:* When asked what services they would like to see added to the Town, respondents marked medical services and service retail with the greatest frequency. In fact, "medical services" and "hospital" were among the most repeatedly chosen services. Service-oriented categories such as restaurants, grocery stores, banks, and movie theatres also received a high number of votes. Business services, other retail options, recreation/entertainment options, and light manufacturing tallied significant vote totals, too.

- *Factors for Success:* Lastly, the survey asked respondents to prioritize a list of factors determining the Master Plan's success. By far, enhancing Wendell's "historic character and small town feel" received the highest ratings—more than eight votes ahead of the second highest rated factor, "increasing dining and retail options."

Charrette Public Input

Many citizens provided input during the public kick-off meeting hosted at the beginning of the charrette. In addition, citizens and stakeholders that participated in the formal and informal meetings during the charrette contributed many meaningful ideas. This input is summarized below and organized into the primary categories of the General Principles.

In general, public input from this list reveals that citizens desire a more vibrant downtown, greater amenities within Wendell, and increased diversity of housing product. Citizens and stakeholders also encouraged a re-examination of the development ordinances, suggesting that the Town toughen greenspace preservation standards as well as foster better and higher expectations for developers regarding necessary community facilities.

Specific ideas that emerged from the charrette process included:

Transportation:

- Make Wendell Boulevard safer and more attractive.
- Connectivity: Provide adequate sidewalk facilities throughout Wendell, keeping non-motorized transportation both practical and safe.
- Encourage developers to connect roadways to increase safety response time and emergency preparedness.

Meeting with Wake County Schools Representatives during the charrette

Housing:

- Revise downtown density/ordinance requirements to promote infill (re)development.
- Allow residential condos in the downtown area. Mix residential/commercial uses.
- Encourage local investment—fewer rentals, more ownership.
- Create a diversity of housing stock. Build housing in the $150,000–$300,000 range.

Downtown:

- Protect & Promote: Historic character/homes/streetscapes/trees, Old Post Office, Town Square.
- Provide incentives for businesses (especially local, specialty stores) to locate there.
- Make downtown a destination: Attract more dining (some upscale) to area—open at night, serve alcohol. Establish a farmer's market. Create entertainment opportunities: playhouse/theatre, art galleries, live music (Zepp's), festivals.
- Increase downtown residential capacity: apartments, town homes, condominiums.

Economic Development:

- Create "gateways" announcing arrival in Wendell and downtown.
- Diversify the tax base through new businesses. Allocate space for an industrial park. Attract higher-paying jobs to Wendell.
- Need better cell phone service—new tower.
- Attract retail to Wendell: grocery stores, restaurants, general merchandise/needs—drug store, movie theatre.
- Develop an image for Town to market its qualities. It's been too good a secret

Public Facilities:

- Schools: Broaden definition of open space to include school grounds and other infrastructure. Include new schools in both short & long term planning—more schools needed
- New sewer needed along Wendell Boulevard.

Development Standards/Ordinance:

- Streamline the development review process.
- Emphasize need for sidewalk improvements.
- Re-examine buffer regulations for commercial and environmental requirements.
- Provide visual illustrations/cross-sections to clearly demonstrate expectations.
- Require more trees in new developments. Toughen greenspace standards.
- Encourage infill development/redevelopment (especially in downtown).
- Devise/enforce maintenance standards for rental properties.

Community Amenities/Natural Resources:

- Enhance open/greenspace standards. Create zoning category for such areas.
- Increase greenway planning, capacities, & connectivity. Include horse trails, too.
- Expand community park.
- Increase hospital and medical facilities.
- Improve sidewalks to/from Wendell Park.
- Promote community events such as Harvest Festival, baseball tournament, etc.

THE FRAMEWORK PLAN

THE FRAMEWORK PLAN

The Framework Plan is a policy map intended to provide guidance to Wendell's leaders as they make decisions on where and how the community should grow. It is the cornerstone of the Town Plan. There are thousands of undeveloped acres in Wendell's annexation areas. One initial step toward achieving a balanced future land development pattern is to identify with more precision the type of development that is desired for each part of the Plan area and the appropriate locations, density, and design standards for such. The Framework Plan is designed to provide a basis for such decisions.

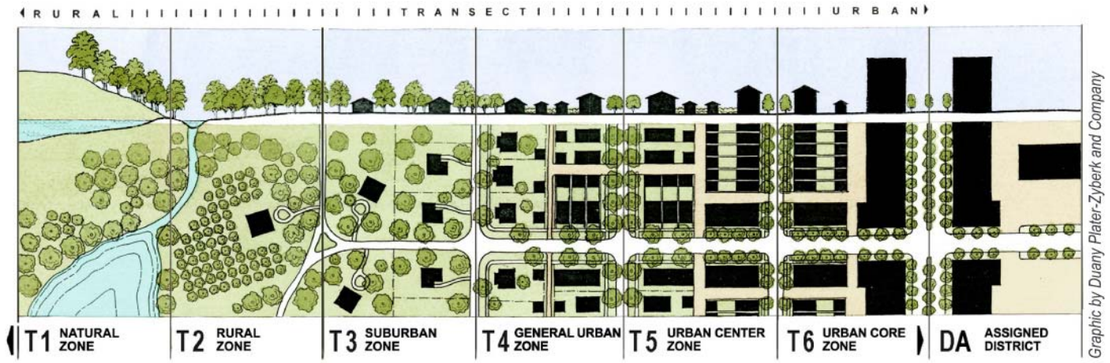
The Plan is derived from the Rural-Urban Transect concept of context-based land development. This concept has been formalized by the Congress of the New Urbanism, but is based on precepts of human settlements that are thousands of years old.

The Transect is a method of, first, classifying the natural and built environments as a continuum of six conditions, ranging from the most natural to the most urbanized; and, second, detailing the specific development and design details for each condition. The graphic on the right shows the defining features of development along the Transect spectrum. For example, a rural street typically has no curbs or sidewalks and its buildings are typically farmhouses or barns. An urban street, depending on the intensity of urbanism, may have curbs and gutters, regularly placed street trees, sidewalks, and building forms that include common walls, flat roofs, and cornices. Streetscape standards that may be appropriate for downtown Wendell may not be appropriate for development at the Town's edge or in the rural fringe and vice versa.

Each Transect category has detailed provisions for design of neighborhoods, density, height, street design, the design of parks, the mix of uses, building design, parking, and other aspects of the human environment. These categories can be used to define the type, intensity, and design of development for areas that are proposed for new development as well as the areas that are proposed to remain essentially undeveloped.

The Transect can be used for land use policy plans including comprehensive plans and small area plans, but should ultimately be applied through the regulatory mechanisms of zoning and land development standards.

The Transect model is being successfully applied through land use policy and regulatory functions at all community scales throughout the United States, including by a number of cities and towns in North Carolina. The metropolitan government of Davidson County, Tennessee, home to Nashville, is successfully using the Transect model as its county-wide land development policy. Cities and towns as large as Montgomery, Alabama, and as small as Salisbury, Fletcher, Belmont, Cornelius, Huntersville, and Knightdale, North Carolina, among others, are using the Transect as a basis for their zoning and land development standards.



Graphic by Duany Plater-Zyberk and Company

PRIVATE	Less Density	More Density
	Primarily Residential	Primarily Mixed-Use
	Smaller Buildings	Larger Buildings
	More Greenspace	More Hardscape
	Detached Buildings	Attached Buildings
	Rotated Frontages	Aligned Frontages
	Yards & Porches	Stoops & Shopfronts
	Deep Setbacks	Shallow Setbacks
	Articulated Massing	Simple Massing
	Wooden Buildings	Masonry Buildings
	Generally Pitched Roofs	Generally Flat Roofs
	Small Yard Signs	Building Mounted Signage
	Livestock	Domestic Animals
PUBLIC	Roads & Lanes	Streets & Alleys
	Narrow Paths	Wide Sidewalks
	High L.O.S. Standards	Low L.O.S. Standards
	Opportunistic Parking	Dedicated Parking
	Larger Curb Radii	Smaller Curb Radii
	Open Swales	Raised Curbs
	Starlight	Street Lighting
	Mixed Tree Clusters	Aligned Street Trees
CIVIC	Local Gathering Places	Regional Institutions
	Parks & Greens	Plazas & Squares

Table by Duany Plater-Zyberk and Company

The graphic above and the accompanying table show the various land use conditions and the typical design elements that characterize the Transect's rural-urban continuum. The graphic shows a bird's-eye view of types of development with buildings shown in black.

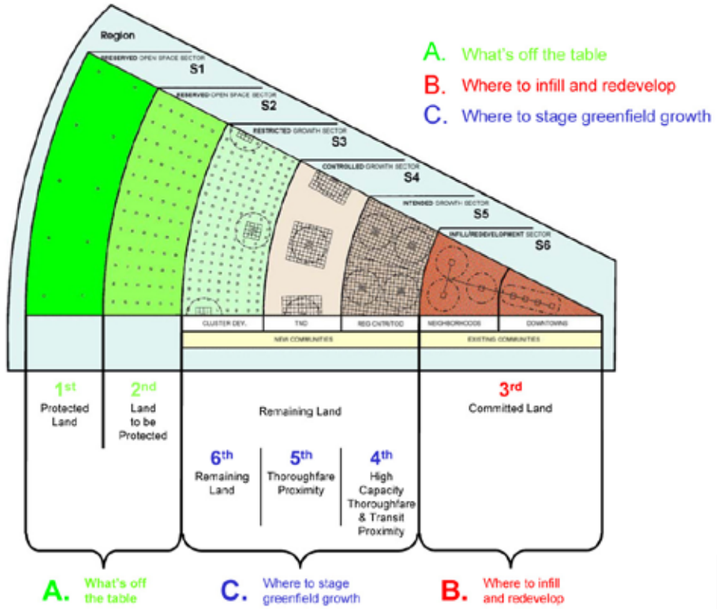
Framework Plan Methodology

The Framework Plan presented here was created using a methodology based on the TransectMap model developed by Criterion Planners. Images and quotes used in this section are taken from Criterion's TransectMap document. TransectMap is a method designed to apply the transect concept to the specific conditions of a particular place. It is especially "suitable for traditional jurisdiction-wide comprehensive planning." The criteria for determining what land use types are appropriate for each sector should be defined based on the particular geographic, economic, and political realities of a community, but generally correlate to the Transect zones and are more specifically defined on the pages that follow.

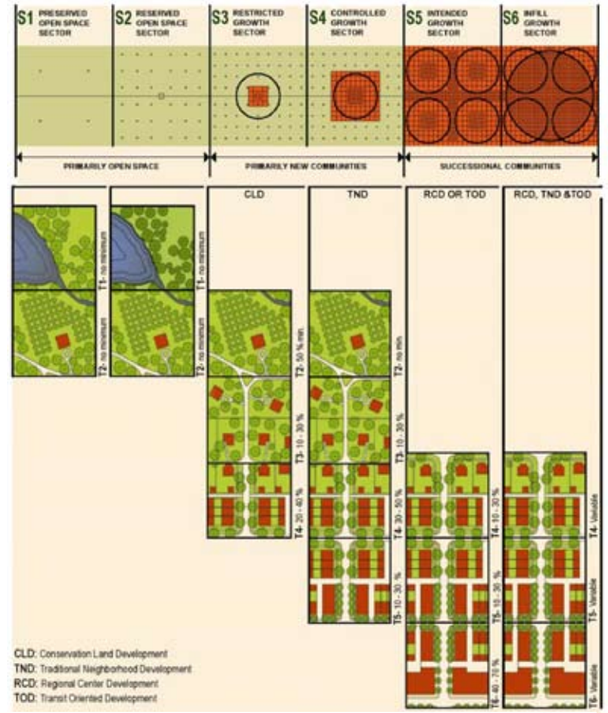
Step 1: Define Regional Sector Boundaries

The methodology, as illustrated in the graphic below, begins by identifying the lands that should not be developed based on environmental, agricultural, recreational, or historical signifcance. These lands comprise the S-1 and S-2 sectors. Then areas that are already urbanized and are appropriate for infill and redevelopment (S-6) are identified. The land that remains is land that is appropriate for new development and is subdivided into sectors (S-3, S-4, S-5) based on appropriate development densities and land use types based on proximity to transportation networks and availability of urban services.

The TransectMap method of land classification



Source: Criterion Planners



Source: Criterion Planners

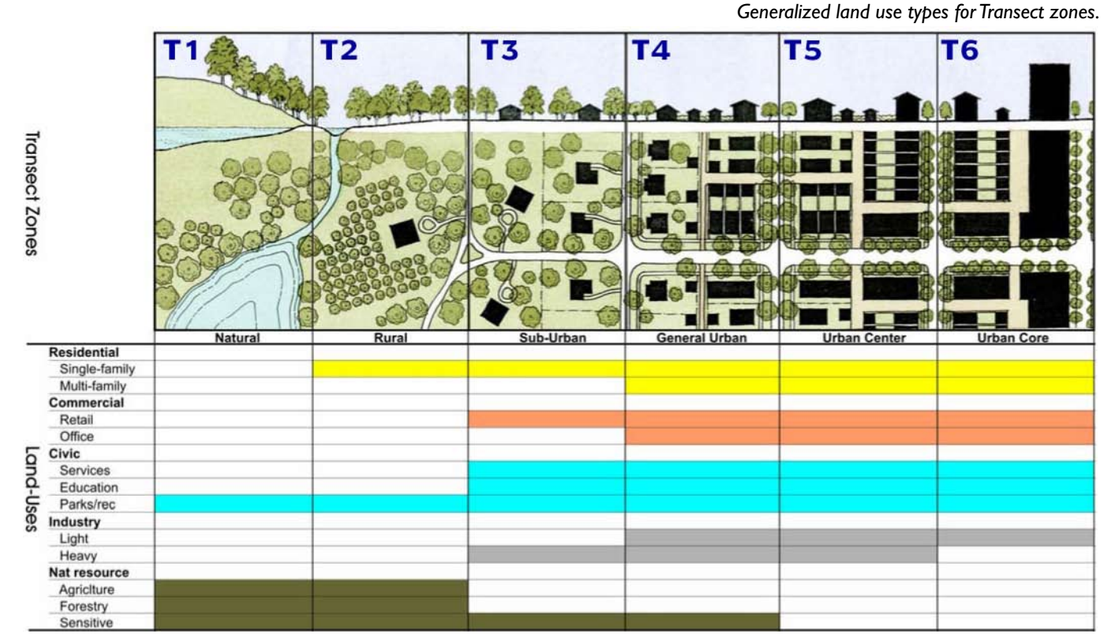
Step 2: Subdivide Regional Sectors into Transect Zones

The next step in the process is subdividing the regional sector zones more precisely into Transect zones that provide the basis for detailing appropriate land uses and development standards at the parcel and building level specifically. This step becomes the basis for applying regulatory (zoning and subdivision) standards in accordance with the community's vision for growth and development as defined in Step 1. The chart at left depicts an idealized version of the appropriate development types and Transect zones for each regional sector.

This Plan recommends that Step 2 of the process is most appropriately completed in the implementation phase of the planning process, which includes a comprehensive re-write of Wendell's development ordinances.

The chart below shows generally the land use types that are appropriate for the various transect zones.

Generalized land use types for Transect zones.



Source: Criterion Planners

Preserved Open Space Sector (S-1):

The S-1 sector typically consists of "those lands that are already non-developable. Examples include protected agricultural lands and woodlands, wildlife habitat, and wetlands." The S-1 sector represents the basic "green infrastructure" of the community providing critical habitat for wildlife; protection of water quality and protection from flooding and erosion; and needed recreation and greenspace for the human habitat.

For the purposes of the draft Framework Plan for Wendell, the following land uses and features are included in the S-1 sector:

- wetlands and water bodies
- Neuse River buffers (minimum 50 feet vegetated buffer on either side of streams and water bodies)
- floodplains
- parks
- Wake County school properties
- conservation lands purchased through the Wake County Open Space Initiative

The composite of all of these features are shown in dark green in the map at right.

Appropriate Land Uses/Development Types:

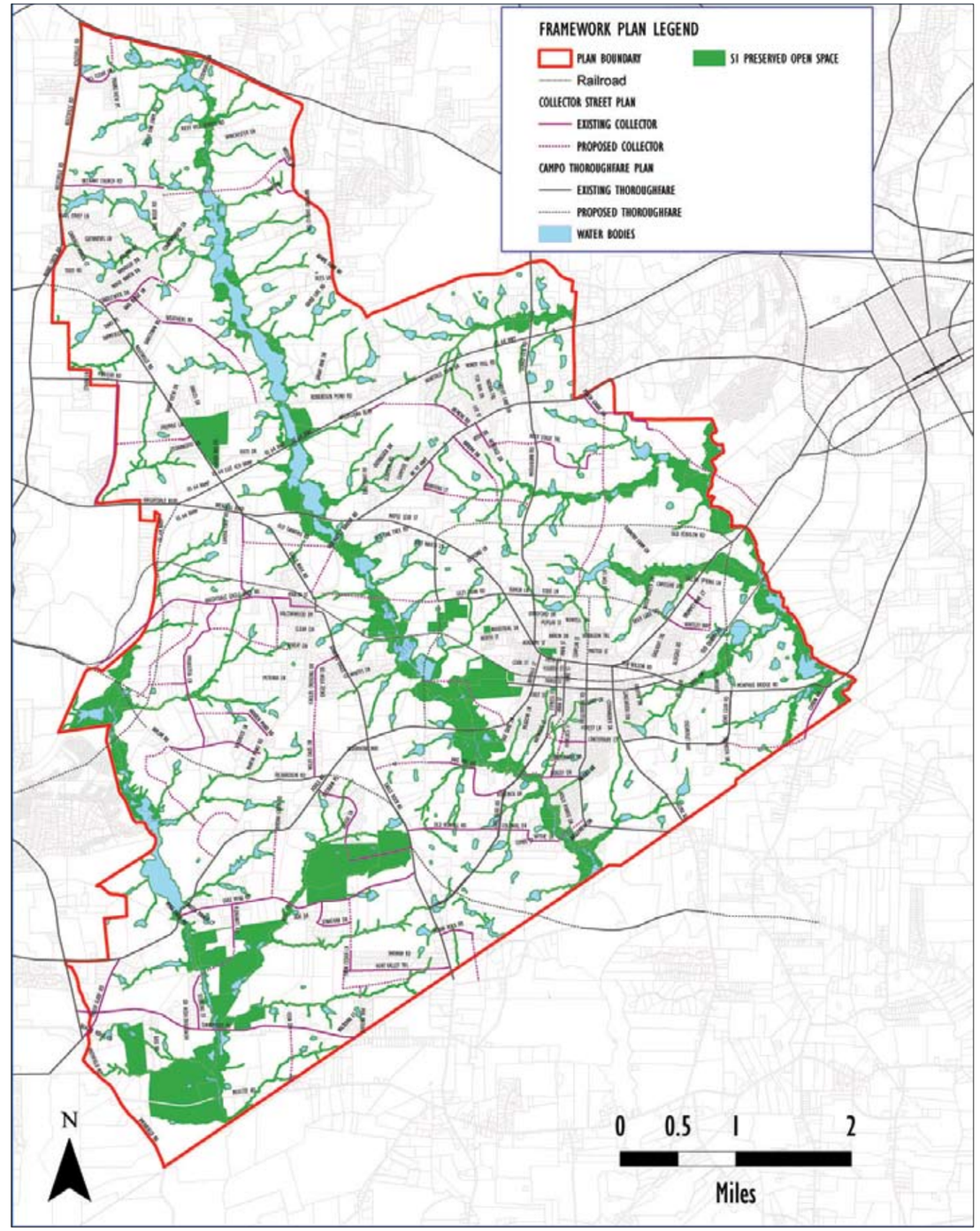
- conservation areas,
- parks & greenways
- agricultural and forestry uses
- limited civic uses such as schools

Source: Town of Wendell

Streams and wetlands are typical S-1 sector features.

Source: Kimley-Horn & Associates

Creekside greenway trail, a typical S-1 sector land use



Reserved Open Space Sector (S-2):

"This sector includes lands that should be, but are not yet, non-developable. Examples include unprotected agricultural land, woodlands, floodplains, and steep slopes."

For the purposes of this plan, S-2 areas are generally classified as lands that meet the following criteria:

- undeveloped parcels of 5 acres or more that are adjacent to S-1 lands; and/or
- are not proximate to an existing or future thoroughfare;
- that are outside of the short-range urban service area for future sewer service;
- that would be very difficult to provide sewer service for based on topography and other factors
- contain steep slopes (>20%)
- are within the North Carolina Wildlife Resource Commission (NCWRC) recommended 200 foot riparian buffer for streams in the Buffalo Creek or Little River watersheds

Lands that meet these criteria are shown in the lighter shade of green in the map at right. These areas are legally developable, however they are areas that based on environmental and urban service factors should be lightly developed or undeveloped, remaining in a rural or natural state. S-2 lands represent areas that are prime candidates for moving into the S-1 sector through conservation easements or other open space acquisition/protection measures.

Recommended Buffers

The federal and state endangered dwarf wedgemussel (Alasmidonta heterodon) is found in Little River and Buffalo Creek watersheds; the federal and state endangered Tar spinymussel (Elliptio steinstansana) is found in Little River watershed. NCWRC's *Guidance Memorandum to Address and Mitigate Secondary and Cumulative Impacts to Aquatic and Terrestrial Wildlife Resources and Water Quality* (August 2002) recommends 200-foot buffers on perennial streams to protect endangered species and their habitat. Such buffers also provide water quality, air quality, flood prevention, recreation (including hunting and fishing), and aesthetic benefits to the entire area. The *Zebulon & Wendell Open Space & Greenway Master Plan* recommends 100 foot buffer on *all* streams in the area as a water quality and habitat protection measure.

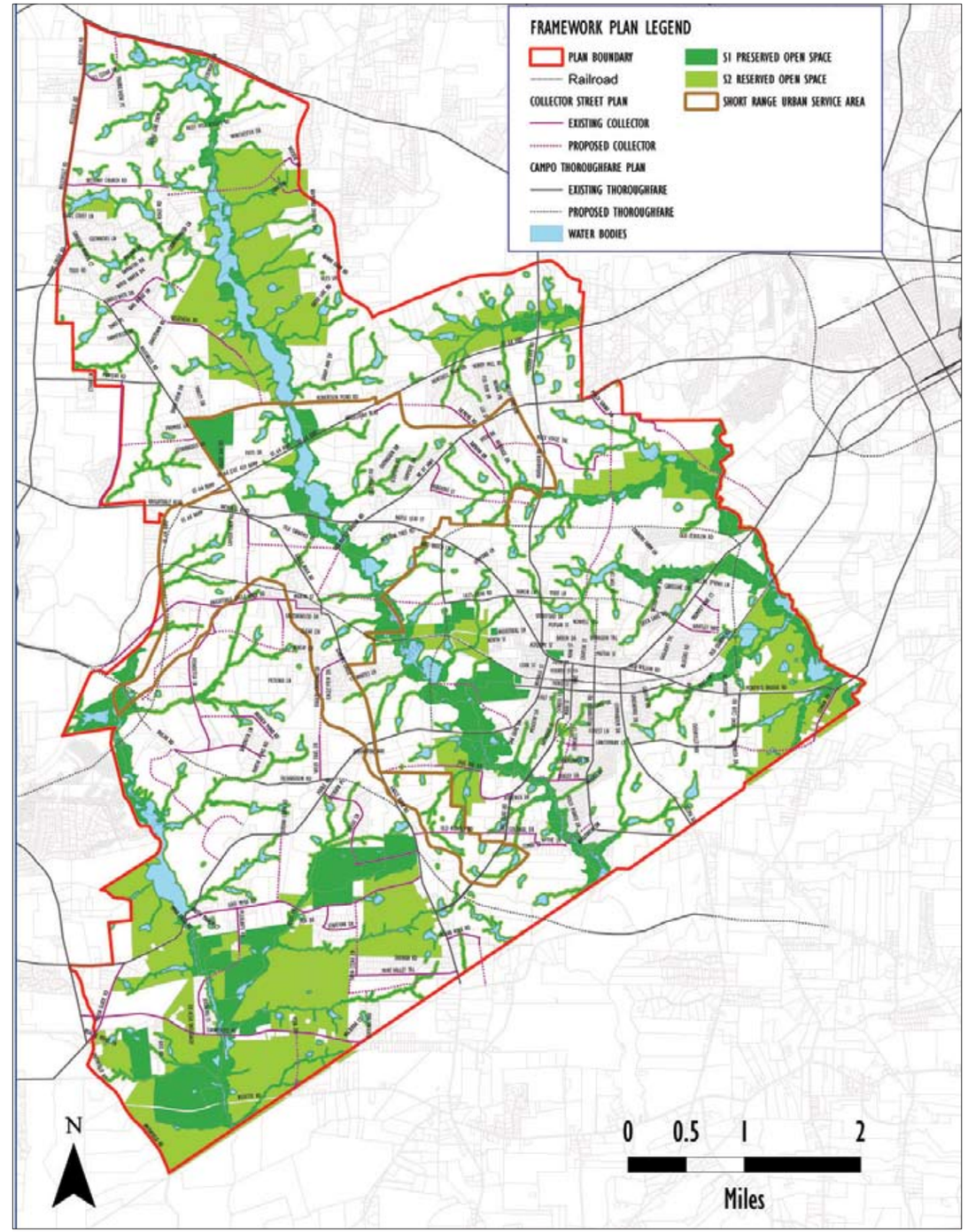
This Plan recommends that the Town develop water quality buffer policies and requirements for 100 foot buffers that would apply to all streams in the area based on a combination of the NCWRC and Master Plan guidance.

Source: Thomas Hylton

Rural area outside of historic Pennsylvania town

Appropriate Land Uses/Development Types:

- conservation areas,
- parks & greenways
- agricultural and forestry uses
- limited civic uses such as schools
- very low-density residential development on large lots (5 acres or greater) or clusters



Infill/Redevelopment Sector (S-6):

"Existing urban/suburban development" with a fairly dense street grid are classified as S-6. These areas are shown in the salmon color on the map at right. This includes most of the built out areas of Wendell around the historic downtown core. These areas are already urbanized and well served with infrastructure (roads, utilities, etc.), and access to services and amenities. Because these areas are already well provided for in terms of urban services, they are the most efficient and most attractive areas for redevelopment of underutilized sites or infill of vacant parcels.

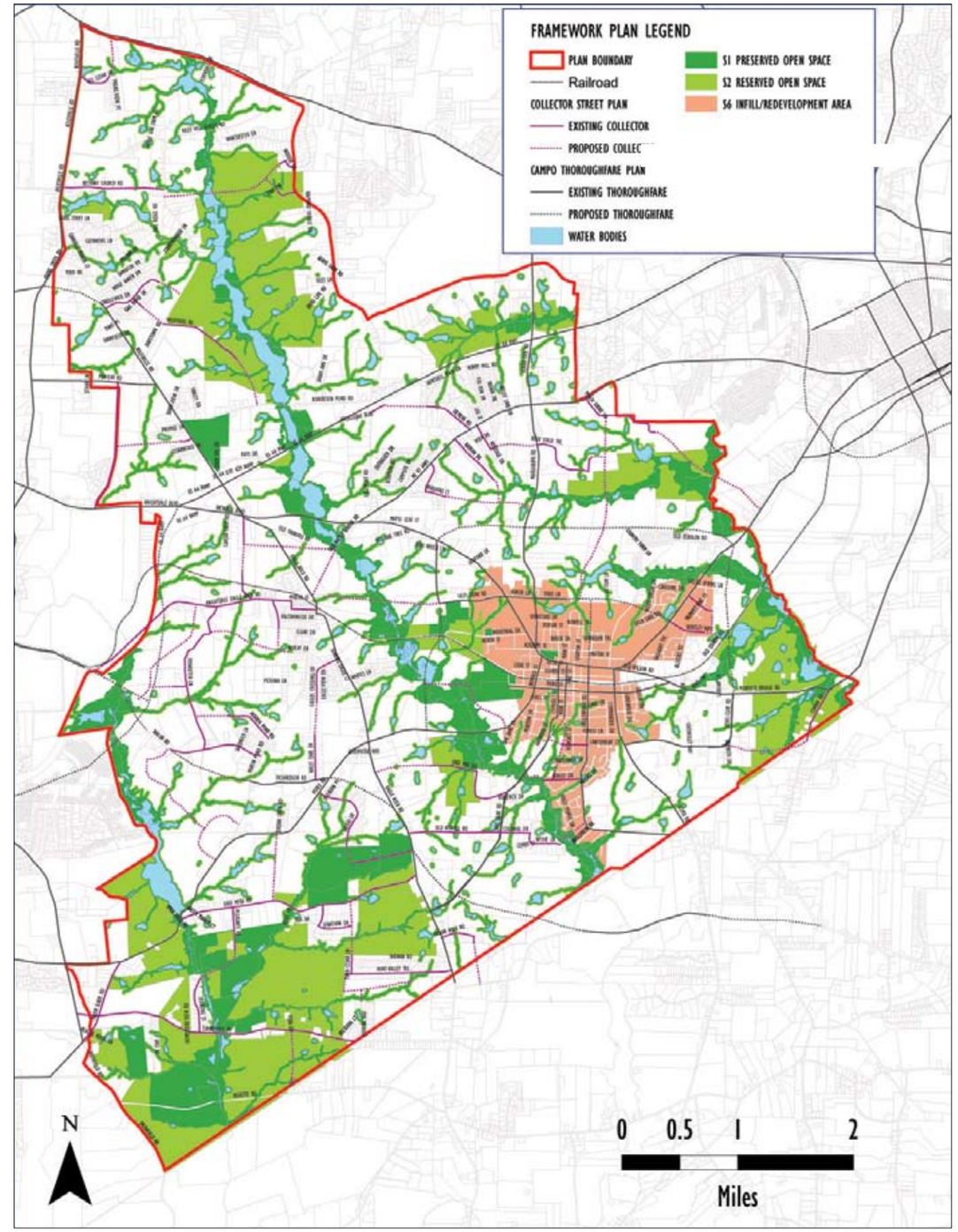
Appropriate Land Uses/Development Types:

In-depth discussion of concepts for downtown development and redevelopment and infill neighborhood development is discussed in later sections of this plan. In general, however, the following development types and uses are appropriate in the S-6 sector.

- neighborhoods
- downtowns
- single-family and multifamily residential
- commercial uses (retail and office)
- civic uses
- light industrial uses

Source: Kimley-Horn & Associates

A view of downtown Wendell looking north along Main Street. downtown and the areas surrounding downtown are the most appropriate for infill of vacant parcels or redevelopment of underutilized sites.



Controlled Growth Sector (S-4):

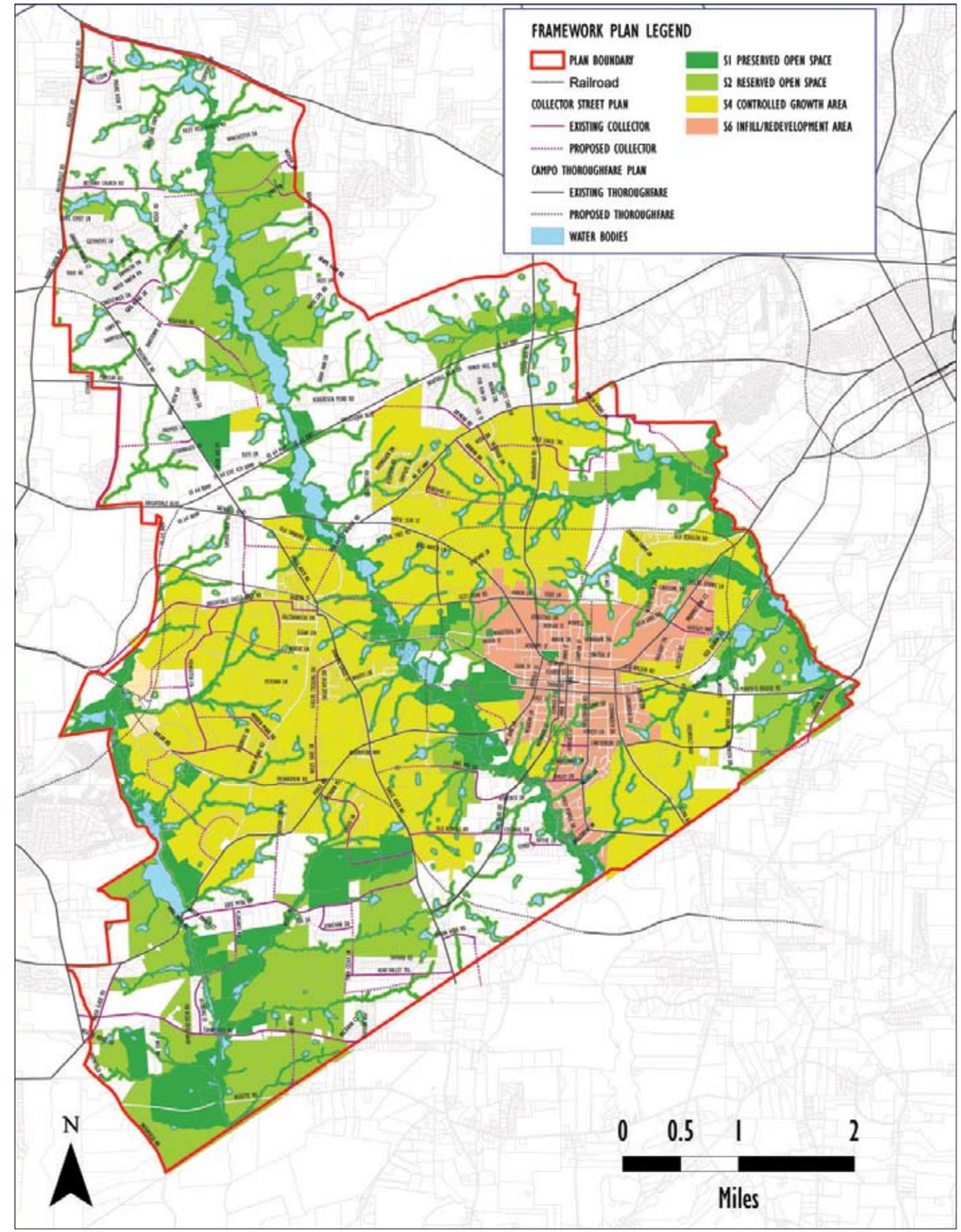
S-4 lands are typically close to thoroughfares and at key cross-road locations. This sector is where moderate intensity new development is appropriate and where the majority of the community's new growth should occur. The typically envisioned community type for S-4 is a traditional neighborhood development (TND), which includes neighborhood serving commercial and civic uses surrounded by a mix of housing types that decrease in density as they get farther away from the commercial area.

Appropriate Land Uses/Development Types:

The following community types and uses are appropriate in the S-4 sector:

- traditional neighborhood developments
- neighborhood centers
- single-family and multifamily residential
- neighborhood-serving commercial uses (retail and office)
- civic uses
- industrial uses

Conceptual plan for a traditional neighborhood development at Eagle Rock Rd



Intended Growth Sector (S-5):

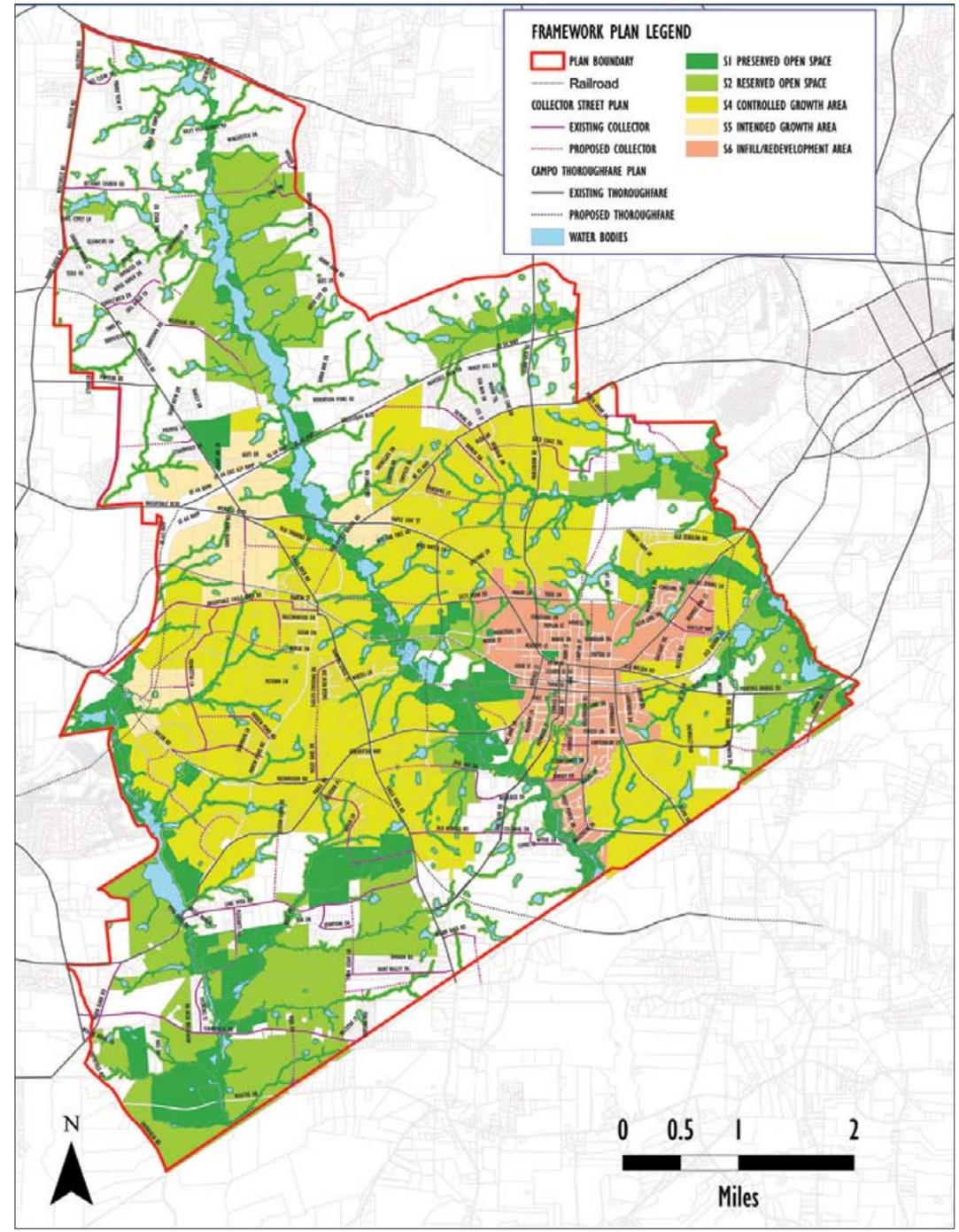
S-5 lands are typically within 1/2 mile of high-capacity regional thoroughfares, such as Wendell Boulevard and the US64 Bypass. Appropriate development types are higher density mixed-use centers of employment, commerce, and residential uses. The future Wendell Falls development and the area around the US 64/Wendell Boulevard interchange were classified as S-5 for the purposes of this plan, as well as some areas along Wendell Boulevard.

Appropriate Land Uses/Development Types:

The full-range of community types and uses are appropriate in the S-5 sector, including:

- traditional neighborhood developments
- neighborhood centers
- village/town centers
- single-family and multifamily residential
- neighborhood-serving commercial uses (retail and office)
- civic uses
- industrial uses

Conceptual plan for an office/industrial campus at Wendell Blvd and US 64



Restricted Growth Sector (S-3):

"Although not a formal open space sector, S-3 is intended for very limited development under tightly controlled conditions." This sector is generally classified as lands that are not proximate to thoroughfares and that are not projected to be high growth areas due to limited access to the transportation network and utilities. Generally, the S-3 areas are outside of the short range urban service area for water and sewer service and are close to S-1 and S-2 areas.

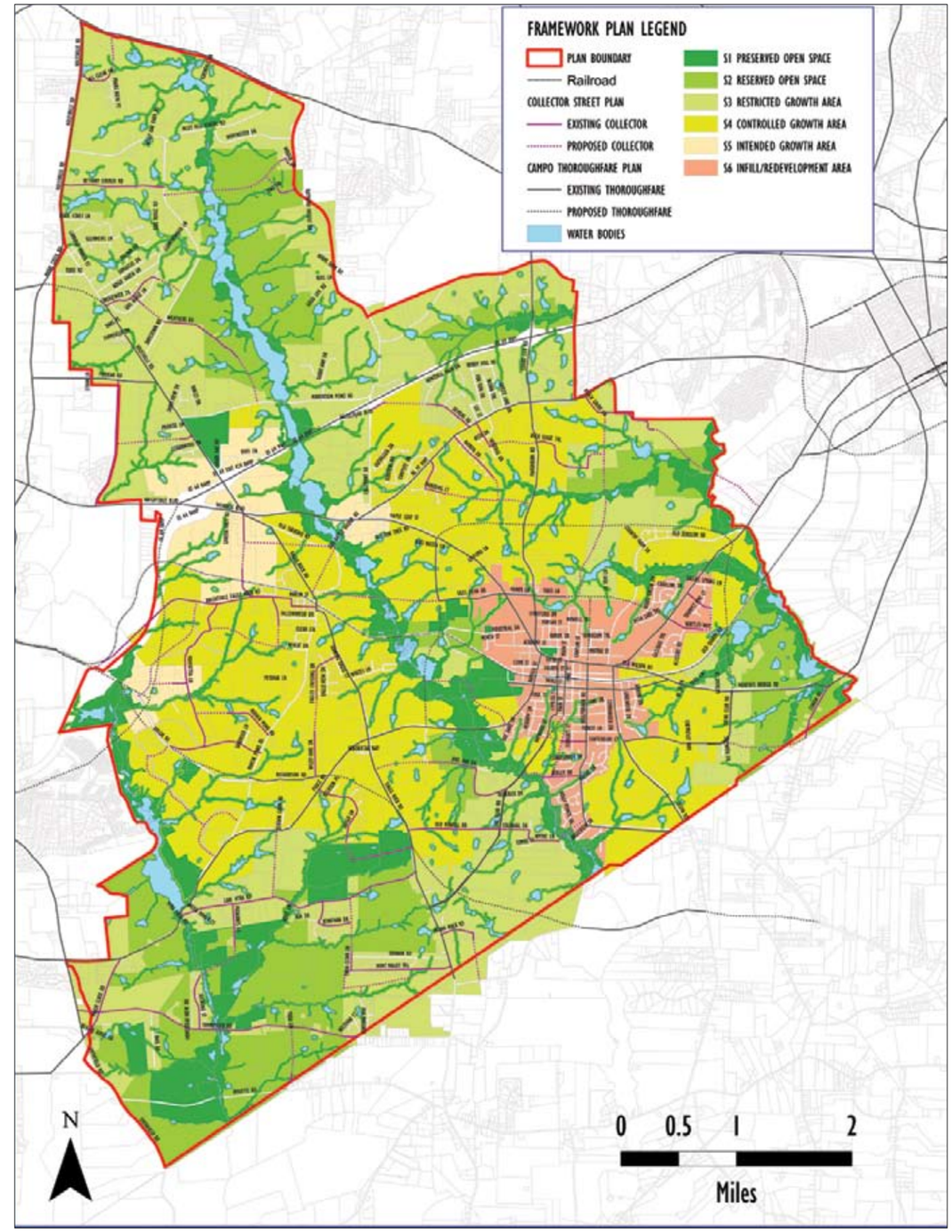
Appropriate Land Uses/Development Types:

The community types and land uses appropriate for this sector are:

- low density cluster developments or hamlets (a clustering of buildings around a rural crossroad)
- single family residential development
- very limited convenience retail uses
- civic uses (parks, schools, religious and government uses)
- some industrial uses

Source: Randall Arendt

Conceptual view of a hamlet-type development



Mixed-Use Activity Centers and Corridors

The Framework Plan includes policy recommendations for future mixed-use neighborhood centers and regional centers.

Neighborhood Centers

Neighborhood Centers, shown on the framework plan in the smaller circles, are based on a 1/4 mile radius (a typical 5-minute walk) from a major intersection. They are intended to be mixed-use activity centers serving surrounding neighborhoods with retail, services, civic uses, and higher density housing. A neighborhood center should not contain more than 80,000 to 120,000 square feet of retail uses. A grocery-anchored mixed-use development is a typical use for a neighborhood center.

A grocery-anchored mixed-use development is a typical neighborhood center use.

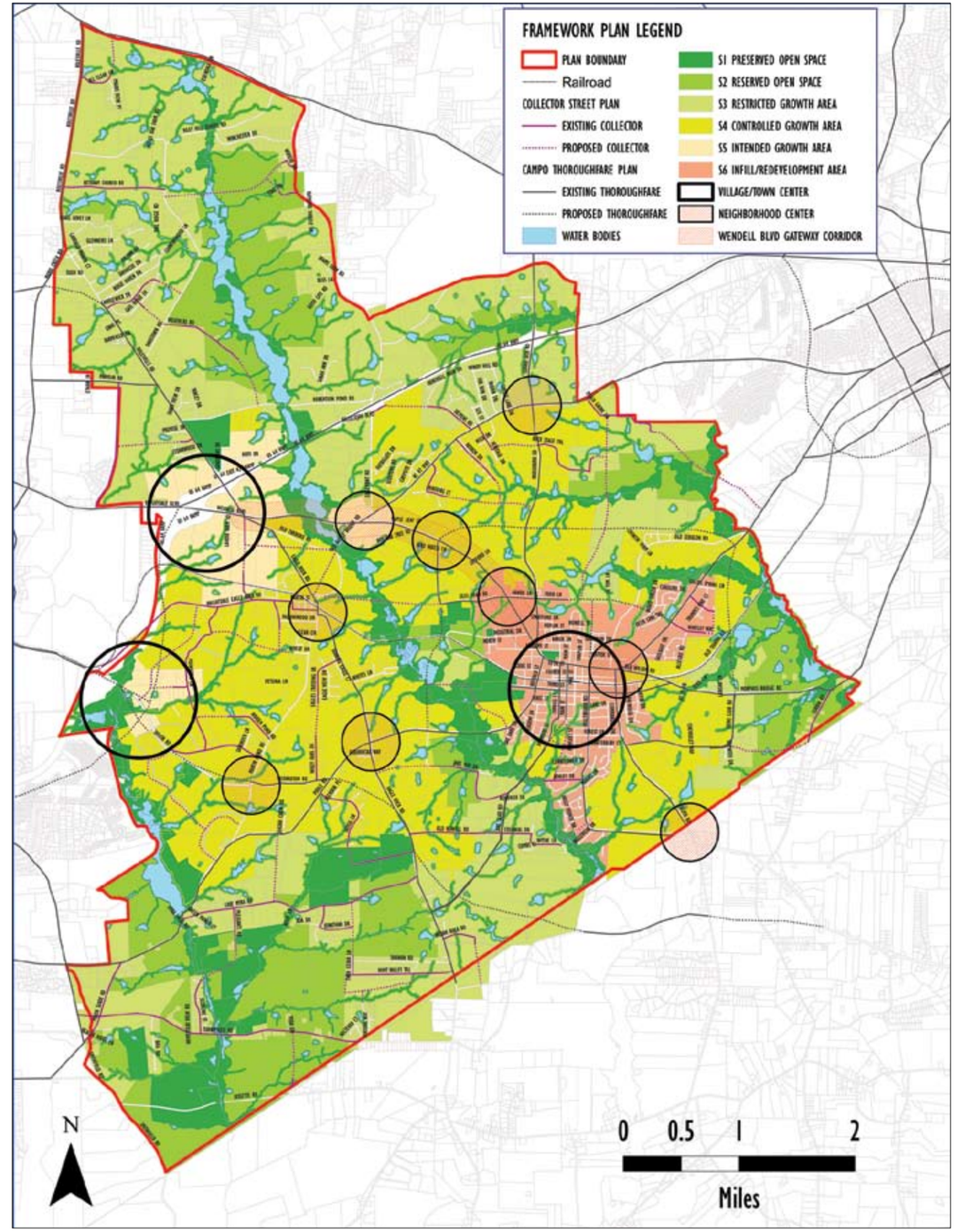
Village/Town Centers

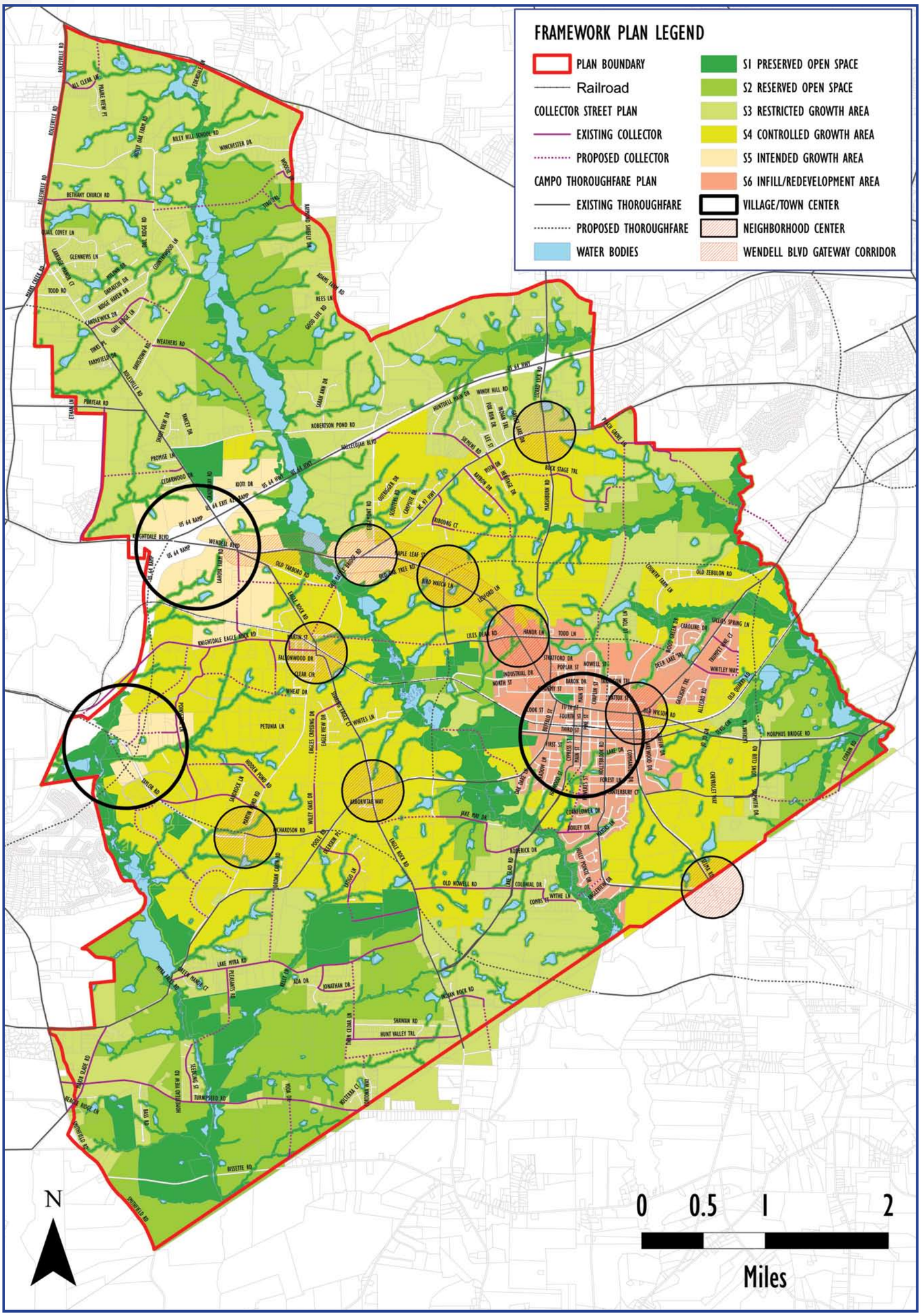
Village or Town Centers contain a mixture of higher density commercial and residential uses.

Village and Town Centers are mixed-use activity centers with employment and commercial uses that attract people from beyond the immediate neighborhoods and from surrounding communities. These centers are appropriate for the area's highest density housing. The area of these centers is based on a 1/2 mile radius (a typical 10-minute walk)—the larger circles on the map. Village/Town centers are envisioned for downtown Wendell and around the future interchanges with US 64 at Wendell Boulevard and Wendell Falls, which are envisioned as locations for regional commercial and employment development as well as higher density housing. These centers are also logical locations for future mass transit station areas as they will provide the highest concentrations of residential and employment in the Plan area.

Wendell Boulevard Gateway Zone

The Framework Plan identifies a special zone along Wendell Boulevard between downtown and the US 64 interchange. This area is experiencing immediate development pressure and much of the area is already zoned for non-residential uses. This Plan recommends that it be an area for professional office and service uses and some higher density residential uses. Additional design guidelines for building and site design to protect the visual character (including the mature trees and forested areas that define parts of the corridor) should be added to the Town's regulating ordinances. Retail uses along this corridor should be limited to the identified centers or nodes in the Framework Plan.




FRAMEWORK PLAN LEGEND
PLAN BOUNDARY
Railroad
COLLECTOR STREET PLAN
EXISTING COLLECTOR
PROPOSED COLLECTOR
CAMPO THOROUGHFARE PLAN
EXISTING THOROUGHFARE
PROPOSED THOROUGHFARE
WATER BODIES
S1 PRESERVED OPEN SPACE
S2 RESERVED OPEN SPACE
S3 RESTRICTED GROWTH AREA
S4 CONTROLLED GROWTH AREA
S5 INTENDED GROWTH AREA
S6 INFILL/REDEVELOPMENT AREA
VILLAGE/TOWN CENTER
NEIGHBORHOOD CENTER
WENDELL BLVD GATEWAY CORRIDOR
N
0 0.5 1 2
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TRANSPORTATION & MOBILITY

Transportation

Wendell Boulevard

TRANSPORTATION ELEMENT

Transportation facilities represent a large and integral element of the physical environment and contribute to the form, efficiency and character of a community. For many cities and towns, the largest acreage of publicly-owned land is comprised of transportation corridor rights-of-way. Streets, paths, and trails connect citizens with their homes, jobs, schools, shops, places to play and places to socialize. Transportation corridors facilitate the movement of goods and services between buyers and sellers (i.e., commerce). The integration of pedestrian, bicycle, public transit, and automobile facilities within the community influences the location and intensity of land uses and the attractiveness to expanding and new businesses. Therefore, changes to the transportation system should reflect the goals of the community and its desire to enhance quality-of-life.

One of the guiding principles of this Plan is to "Ensure local and regional interconnectivity and transportation options while also maintaining Wendell as a walkable community." This principle was given more specificity during the planning process as participants emphasized their desire for:

- An interconnected street network for safety and access;
- Improvements to the safety and appearance of Wendell Boulevard;
- Context-appropriate design standards for new development (versus one-size-fits-all approach); and,
- More and better facilities for walking and bicycling

The transportation element of this Plan represents the community's collective vision for a safe, efficient, walkable, and interconnected transportation system that harmonizes with the natural, historic, and social resources that create Wendell's community character. It is consciously designed to preserve what is embodied by Wendell's slogan "Small Town Charm—Capital City Connection".

Summary of Transportation Recommendations

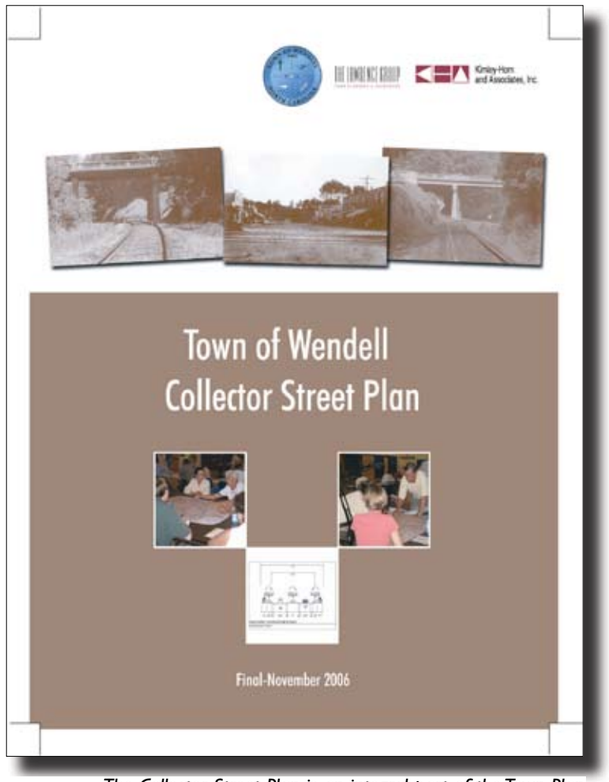
Wendell will benefit from this Plan as it responds to forthcoming land development applications. The land development process allows a growing municipality to fill-out its transportation system by leveraging public funds against developer participation. The combination of public and private funding is essential, for there will be gaps along corridors between developments that should be filled in a timely manner using public funds. Appropriate improvements along the frontage of new developments should be required of developers. In some instances, off-site improvements can be required as well. The following is a summary of the transportation recommendations:

- *Provide pedestrian and bicycle accommodations in urbanizing areas and along connecting corridors.* Today the corporate limits of Wendell are only about two miles across. Thus downtown Wendell would be within easy walking distance if adequate pedestrian accommodations were provided. Most people can walk one mile in 15 to 30 minutes, giving impetus to filling gaps in the Town's network of sidewalks and crosswalks.

- *Coordinate Land Use Planning with Regional Neighbors:* While transportation solutions will be critical, one of the Town's greatest contributions toward improving the transportation system will be to coordinate responsible land use planning in the Town Plan with other towns in Wake County and with local, regional, and state transportation agencies.

- *Coordinate Public and Private Investment in Infrastructure:* To maximize the potential for partnerships with private developers, the Town of Wendell must continue to develop and approve transportation plans that acknowledge the varying responsibilities of public and private entities while facing the pressures and opportunities inherent with growth.

- *Implement the Collector Street Plan:* It should be noted that a critical part of the tranportation element of this Plan is the *Town of Wendell Collector Street Plan,* which was developed as an integral part of this planning process and should be referenced for policy and regulatory implementation. The purpose of the Collector Street Plan is to provide "standards and policies that will promote future connectivity by creating an efficient network that accommodates automobiles, pedestrians, and bicycles as collector streets are constructed." The Collector Street Plan includes additional detailed transportation planning policy and technical standards that complement the recommendations in this plan.



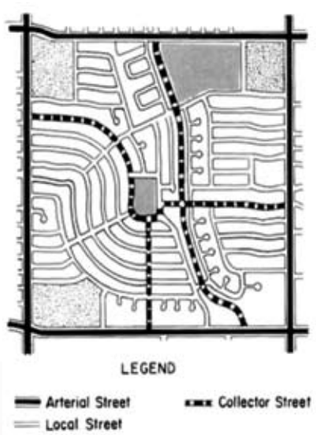
The Collector Street Plan is an integral part of the Town Plan

Transportation System Overview

The existing transportation system is comprised of public and private streets and a few off-street, multi-use trails. The map at right, Existing Conditions, illustrates the existing transportation network. The street system in the heart of Wendell is a grid network of fairly narrow streets pre-dating the automobile era. In the downtown area, the grid street pattern has a human scale that encourages pedestrian use and contributes to the ambience of Wendell. Heading out of the downtown core, the urban form of Wendell changes dramatically where the roadways are wider and the land use is more rural. The grid becomes a "wheel-and-spoke" network outside of the downtown that reduces traffic congestion downtown by allowing through traffic to bypass the area. The "wheel-and-spoke" network has been partially implemented. Currently, the radial components of the wheel are more developed west and north of the downtown due to the presence of US Highway 264, Eagle Rock Road, and NC 97. The spokes include Wendell Boulevard, Marshburn Road, and Poole Road.

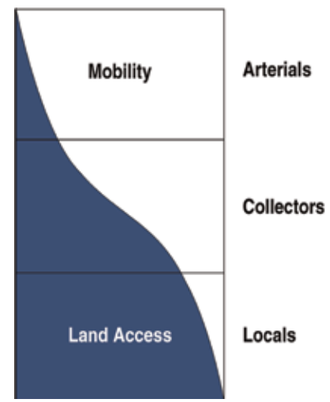
Functional Classification

The functional classification system groups streets according to the land use served (or to be served) and provides a general designation of the type of traffic each street is intended to serve. Two major considerations for distinguishing types of streets are access and mobility.

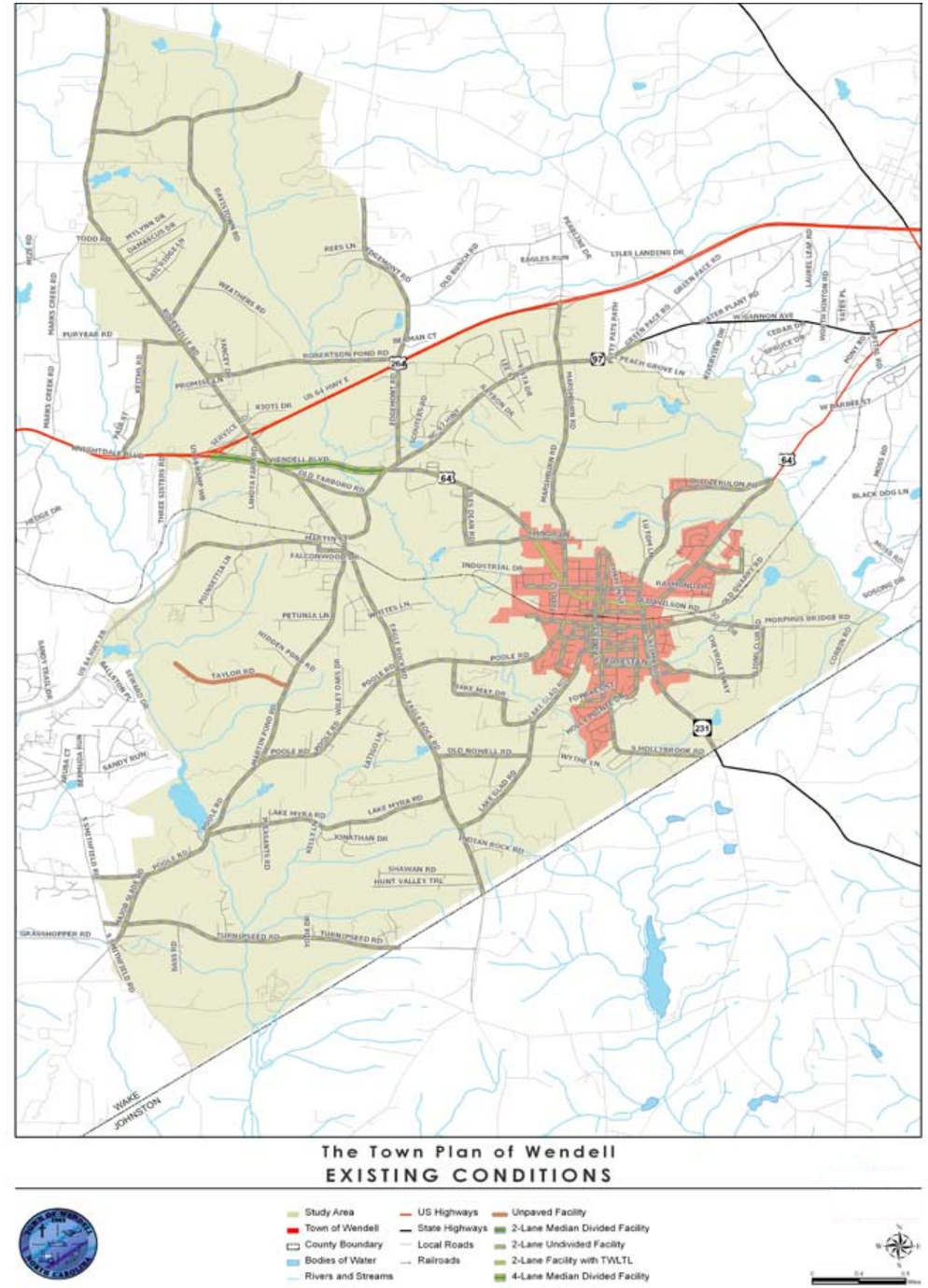


The primary function of local or neighborhood streets is to provide access. These streets are intended to serve localized areas or neighborhoods, including local commercial and mixed land uses. Local streets are not intended for use by through traffic. These streets typically connect to one another or to collector streets and provide a high level of access to adjacent land uses/development (i.e., frequent driveways). Locals serve short distance travel and have low posted speed limits (25 mph to 35 mph). Examples of local streets within the project study area include Lawson Drive and Todd Street.

The primary function of arterials is mobility. Limiting access points (intersections and driveways) on arterials enhances mobility. Too much mobility at high speeds limits access by pedestrians and bicyclists. The arterial is designed with the intent to carry more traffic than is generated within its corridor. Arterials operate at higher speeds (45 mph and above), provide significant roadway capacity, have a great degree of access control, and serve longer distances. Arterials include facilities with full access control such as freeways and expressways, as well as boulevards and major thoroughfares. Arterials usually connect to one another or to collector streets. An example of a major arterial in the study area is Wendell Boulevard. Examples of minor arterials within the study area include Hollybrook Road, Poole Road, and Main Street.



Collectors provide critical connections in the roadway network by bridging the gap between arterials and locals. They typically provide less overall mobility, operate at lower speeds (less than 35 mph), have more frequent and greater access flexibility with adjacent land uses, and serve shorter distance travel than arterials. Thus, the majority of collector streets connect with one another, with local streets, and with non-freeway/ expressway arterials. Examples of collector streets within the project study area include Forest Lane and Commander Drive.



MAJOR TRANSPORTATION POLICY RECOMMENDATIONS

Link Land Use and Transportation Decisions

Wendell is realizing land development pressures at a time of unprecedented stress and strain on the ability of the State of North Carolina to widen roads. For this reason, the traditional philosophy of street planning is embodied in this plan; that is, an interconnected network of community-friendly streets that provides for the safe, effective and efficient movement of all modes of travel including walking, strolling, jogging, strollering, roller-blading, cycling, riding and driving.

An efficient transportation system connects neighborhoods and activity centers via a network of streets, paths and trails that are safe and supportive of pedestrians, bicyclists, transit patrons, cars and trucks. Such a system offers choice for short and long trips alike and promotes convenient movement of people and goods. This is not to suggest that all streets are created alike; in fact, parallel streets may serve different functions.

The history of street building shows patterns of original farm-to-market roads being bypassed several times. In Wendell, Depot Street was bypassed by Fourth Street; which sometime later was bypassed by Wendell Boulevard; which was bypassed by Highway 64; which has only recently been bypassed again by the new Highway 64 freeway. This series of bypasses builds redundancy in the street network; redundancy that creates opportunities for community renewal. As stated above, streets contribute to the form of a community. To be specific, narrow two-lane streets with on-street parking and safe pedestrian crossings lead to visibly different building form and even land use compared with a high-speed, multi-lane divided highway. Both types of streets are needed in most cities and towns; therefore, the question becomes how much of each and where do they belong. The Town of Wendell has met the challenge by evaluating and considering land use and transportation decisions simultaneously, within the context of this comprehensive plan. As the community develops further, ongoing evaluations of the transportation impacts of land use decisions as well as the land use impacts of transportation decisions is imperative.

Two basic philosophies exist in American street planning. Traditionally, networks of streets, paths and trails were interconnected along some reasonable pattern such that connections were provided on some, but not all streets. However, in recent decades, an approach has become conventional across America that connects fewer streets in favor of much wider corridors we call major thoroughfares. The conventional philosophy is predicated on sufficient State Department of Transportation (DOT) funding to keep up with the widening schedule while assuming municipalities with land-use authority will require developers to provide some level of street connections as land is developed. In actuality, most state DOTs have not kept up with road widening and many municipalities have failed to require street connections. This has resulted in what is known universally as traffic congestion.

Source: KHA; adapted from Wisconsin DOT

Furthermore, the supreme safety record of our interstate highway system has lulled American road planners into a mind set that higher speeds and wider streets contribute to safety. However, that safety record is far from stellar on our non-interstate streets and roads. In fact, the widespread construction of five-lane roads, with the center lane available to left-turning traffic has all-but-been-abandoned by the North Carolina Department of Transportation due to high crash rates. Instead, DOT prefers four-lane thoroughfares with divided medians that allow for evenly-spaced median openings with well-designed left-turn lanes.

This Plan envisions a time when regular bus service and perhaps passenger train service is provided in and through Wendell. To reduce congestion and protect the environment, new and existing roadways should provide for more efficient movement of motor vehicles while better accommodating transit, walking, and bicycling. Likewise, all new and improved transportation options should respect the land use and transportation connection by supporting established neighborhoods while anticipating new growth and changing travel patterns.

For a growing area like Wendell, in addition to balancing the urban and rural divide, the benefits of connecting land use and transportation can:

- Reduce capital and operating costs for the transportation system;
- Ensure consistent economic growth;
- Protect social and environmental resources;
- Provide convenient and attractive access between work, services, and residences while reducing dependency on automobiles and the area's major thoroughfares; and,
- Maintain attractive, economically-sound places serviced by an efficient and diverse transportation system

Apply Context-Sensitive Street Design Standards

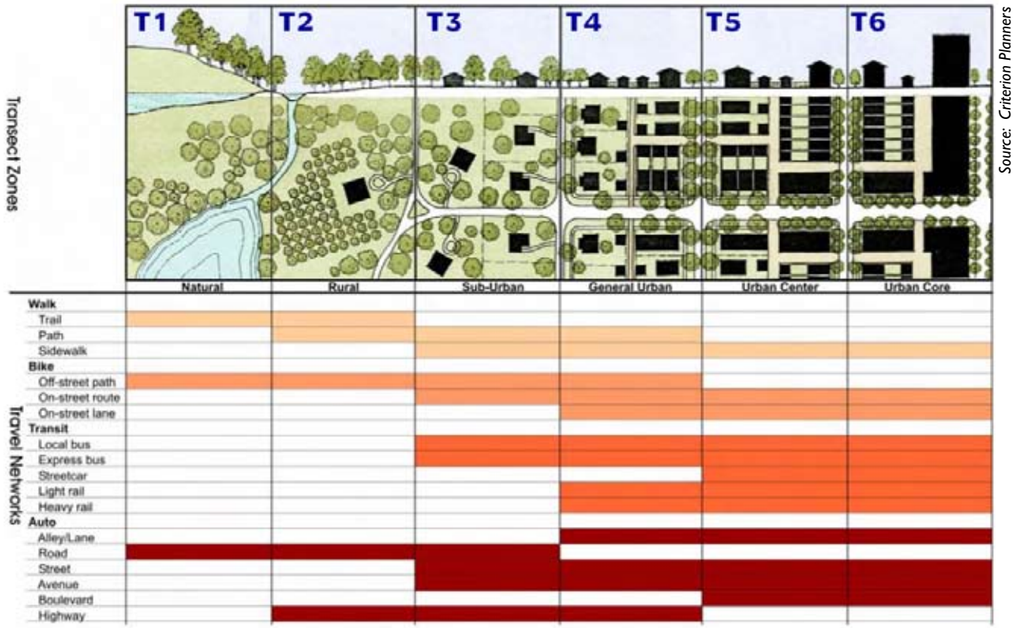
Building on the connection between land use and transportation, it is helpful to consider context-sensitive street design. Wendell is characterized by multiple context zones that define the built environment. These contexts can be generally described as natural, rural, suburban, and urban as described in the Framework Plan section on the Transect concept. Each of these land categories is accompanied by unique design elements, and while some elements overlap, there is no "one size fits all" solution.

Much of the modern American landscape has been developed for automotive transportation. However, as auto-dependent development has grown, and the consequences of this type of planning have become apparent, a shift has taken place to realign development to human needs. A return to the concept of general urban, suburban, rural, and natural distinction demands visual cues and supporting features between land types. In transportation corridors, the distinction lies in context-sensitive design through elements such as parking, sidewalks, street trees, and drainage. Elements that are important to the urban environment, such as dual sidewalks and frequent street lighting to serve automotive and pedestrian needs, would be inappropriate in the natural environment. Similarly, meandering trails and large trees would be much less appropriate in an urban context than in the rural or suburban contexts.

While it may seem contradictory to the above statement, one of the most important context sensitive design elements is parking. At a time where some developers are happily placing parking lots behind buildings, hidden from the public realm, it is still important to consider the role of on-street parking in the provision of a defined spatial experience. In a higher-density urban or Traditional Neighborhood Design (TND) area, on-street parking

is appropriate and may be used to give definition to a more urban context. On-street parking may also be used in this context to define the boundary between the realms of pedestrian and automotive transportation, and may serve as a physical and visual buffer for pedestrians on the sidewalk. In rural areas, on-street parking may not be appropriate, as narrower streets are preferred.

Sidewalks are a necessary element in the urban realm where land use densities are higher and many people walk from place to place.



Source: Criterion Planners

Generalized transportation infrastructure for Transect zones.

In this case, it is appropriate to have sidewalks fronting buildings on both sides of the street. As density increases, the sidewalks become a primary point of activity, and should be accompanied by street furniture such as benches, waste receptacles, media kiosks, and appropriate lighting to serve the needs of the pedestrian and to provide a sense of order. In suburban and rural areas, as building density decreases, pedestrian traffic can be served by a sidewalk on one side of the street, and in some cases, by multi-use paths constructed as part of a greenway system. Rural and natural areas are also appropriate locations for trails, which can meander alongside roadways or wind through the landscape. Appropriate lighting as a safety provision is necessary wherever pedestrian traffic is anticipated.

Street trees present an excellent tool in the definition of place, and can adequately be used to slow traffic through certain areas. In urban areas, trees may be placed along the street in sidewalk grates, and can be used to create a sense of enclosure for the street, and a buffer to pedestrians on the sidewalks. This placement helps distinguish the automotive realm from the pedestrian realm, and allows for a pleasant break from sunny concrete environments. As land use transitions from urban to suburban areas, planting strips with evenly placed trees are contextually appropriate to cue the gateway from a dense environment to a less urban residential environment. These trees may still serve as a buffer to adjacent sidewalks or multi-use paths, and may be larger in scale than urban street trees. The suburban to rural transition may be supported with naturalistic planting, which can provide ample spatial definition while presenting a less ordered appeal. The transition from rural to natural landscape is marked by sporadic planting and primarily natural or agrarian landscapes.

An additional element for consideration is drainage. While the curb-and-gutter method is appropriate for urban through suburban contexts, it is often more appropriate to incorporate swale drainage systems into the rural and natural environments. Conversely, it is not appropriate to utilize swale drainage into the more densely populated and paved suburban and urban areas.

Recommendations for the transportation system throughout this document respect the necessary balance between land use and transportation and acknowledge the role of context sensitive design in enhancing the qualities that make Wendell a unique and appealing place to live, work, and visit. These recommendations are meant not only for the Town, but also for the roads and rights-of-way under NCDOT control and projects initiated by developers.

Coordinate Local Land Use Planning with Regional Transportation Planning

While transportation solutions will be critical, one of the Town's greatest contributions toward improving the transportation system will be to coordinate responsible land use planning in the Town Plan with other towns in Wake County and with local, regional, and state transportation agencies. The transportation network within the Town of Wendell provides mobility for automobiles, public transit, bicycles, and pedestrians in one comprehensive system. The responsibility for maintaining and/or enhancing the transportation system is divided among local, regional, and state entities depending on the location and type of improvement and its stage in the implementation process.

One of the most pressing hurdles for Wendell toward linking land use and transportation planning is the context in which decisions are made. In the State of North Carolina, land use planning is regulated on the local level and memorialized in adopted comprehensive plans. Conversely, transportation planning in North Carolina is primarily the responsibility of the North Carolina Department of Transportation (NCDOT) and regional MPOs such as the Capital Area Metropolitan Planning Organization (CAMPO) in the Raleigh area. The disconnect between land use and transportation planning in North Carolina often places local and regional government agencies at odds over single critical issues—each with their own political agendas and implementation schedules.

The actions of the Town and those of other agencies significantly impact all facets of life in and around Wendell and recent intergovernmental coordination of town and regional planning has grown increasingly important. The transportation element for the Town Plan focuses on the interdependent transportation systems within the Town's corporate limits. However, it also recognizes that they function as part of a larger regional network serving the area. To this end, the Town of Wendell is committed to working with regional transportation authorities to implement sustainable solutions (i.e., transportation options) identified throughout the transportation element that reduce vehicle miles traveled and congestion levels on the major roadway network.

Private developers have a responsibility for the transportation system, particularly as competition increases for the limited public funds available for new projects. Progressive municipalities understand private developers offer an excellent opportunity to complete projects very quickly. Meanwhile, private developers benefit from improved circulation within and beyond the limits of their development. To maximize the potential for partnerships with private developers, the Town of Wendell must continue to develop and approve transportation plans that acknowledge the varying responsibilities of public and private entities while facing the pressures and opportunities inherent with growth.

Long Range Transportation Plan Roadway Projects

The Capital Area Metropolitan Planning Organization (CAMPO) 2030 Long Range Transportation Plan (LRTP) identifies transportation priorities for Wake County over the next 24 years, separating those priorities into fiscally-constrained or unfunded categories. CAMPO addresses transportation needs at a regional level, so the recommended projects are based on regional benefits. CAMPO recommendations are forwarded to the NCDOT for evaluation as the State determines projects that will be funded over the ensuing seven years. The table below lists the Wendell area long range projects that are proposed to mitigate projected roadway capacity issues. The current CAMPO plan does not list any funded short-range (2007-2013) projects for Wendell.

Table 1 – Programmed LRTP Roadway Projects

Roadway	Type	Fiscally Constrained or Unfunded	Completion Date
Poole Road	Upgrade to 4-5 lanes	Fiscally Constrained	2030
Eagle Rock Road	Transportation System Management	Fiscally Constrained	2030
Old Zebulon Road	Transportation System Management	Fiscally Constrained	2020
Old Zebulon Road west to US 64	2-3 lane new location	Fiscally Constrained	2020
Wendell Boulevard	Upgrade	Unfunded	2040

Source: CAMPO 2030 Long Range Transportation Plan

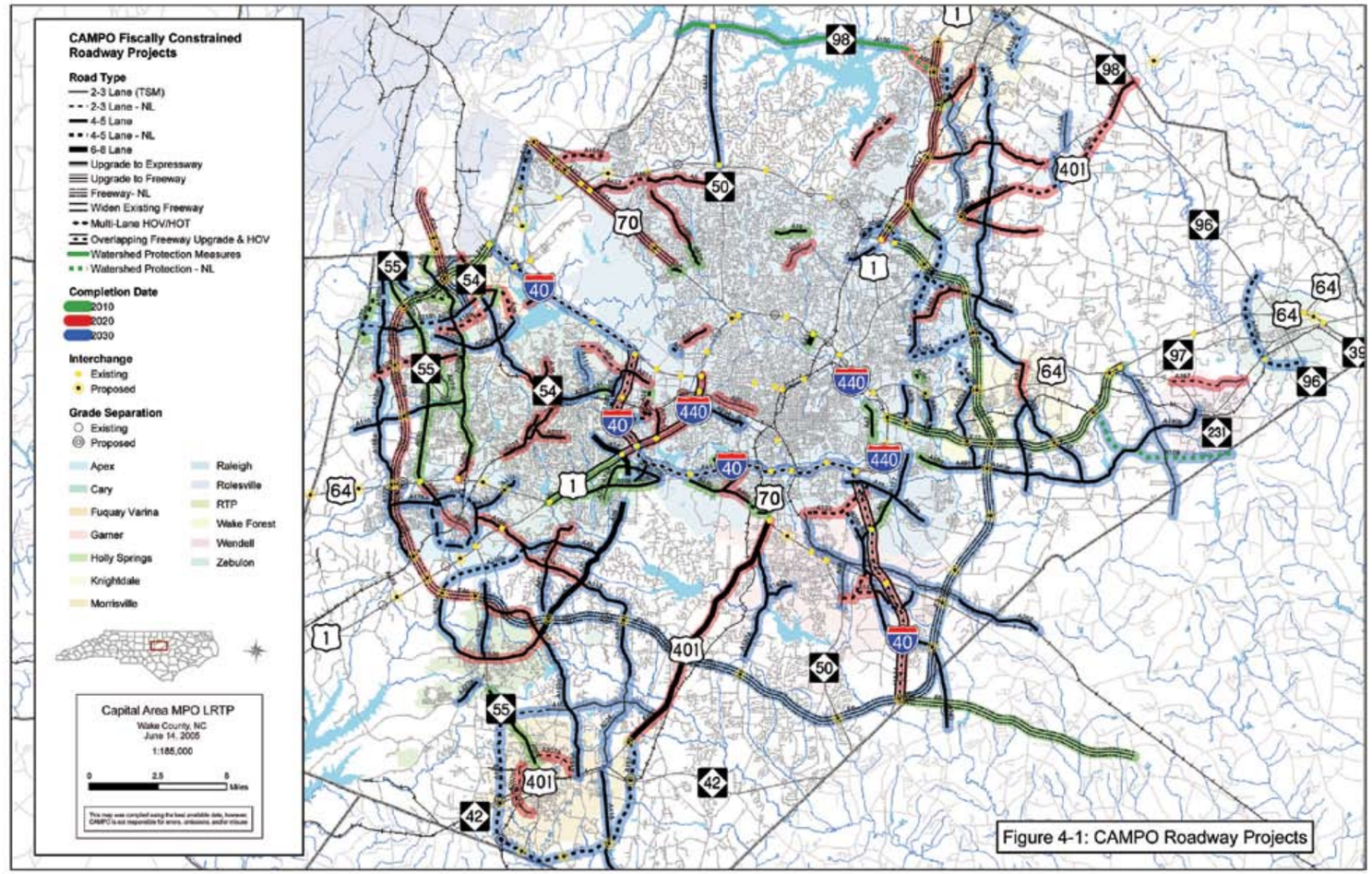


Figure 4-1: CAMPO Roadway Projects

EXISTING TRANSPORTATION NETWORK RECOMMENDATIONS

The existing transportation network includes sidewalks, greenways, bikeways, public transit, and roadways.

Sidewalks

Walking is the cornerstone and key to a community's transportation system. Every trip begins and ends as a walking trip; yet walking is most often the first forgotten mode. If the proper pedestrian environment is provided, walking offers a practical transportation choice that provides benefits for both individuals and their communities. The potential for increased walking is enormous since one quarter of all trips in the United States are less than one mile in length. Features that contribute to making communities more walkable include a healthy mix of land uses, wide sidewalks, buffers between the edge of pavement and the sidewalk, and trees to shade walking routes. Slowing traffic, narrowing streets to reduce pedestrian crossing distance, and incorporating pedestrian infrastructure (e.g., signage, crosswalks, and adequate pedestrian phasing at signals) into future roadway design plans also make communities more walkable.

The most walkable parts of Wendell are in the downtown area where there is a fair network of sidewalks

The availability of pedestrian facilities and amenities plays an important role in encouraging the use of alternative modes of travel to the automobile. Benefits associated with walking include the ability to ease traffic congestion, personal health/recreation, and reduced need for automobile parking facilities. In order to be considered a realistic transportation alternative, however, existing conditions need to be favorable for pedestrian use. As a travel mode and recreational activity, walking offers the potential to reduce traffic congestion, improve air quality, and contribute to healthier citizens.

In Wendell, an incomplete sidewalk network, a roadway environment that encourages fast driving and discourages pedestrian activity, and disconnected land uses (outside of downtown) has lead to a dependency on automobiles even for the shortest trips. The most walkable parts of Wendell are in the downtown area. Here, pedestrians benefit from the few sidewalks within the Town limits, the interconnected street network, and a mix of land uses. Beyond the downtown area, sidewalks appear less frequently and few, if any, exist near the rural fringe. The map on the following page (Pedestrian and Bicycle Facilities) illustrates the existing pedestrian facilities in the downtown area.

Sidewalk Recommendations

- Develop a Comprehensive Pedestrian Plan: The Town of Wendell should complete a Town-wide pedestrian facilities plan for providing a pedestrian network that connects local residents and visitors to the area with nearby destinations. Upon completion of the plan, the Town should act on the conclusions and recommendations from the study to target improvements to the pedestrian environment through the Town's Capital Improvement Plan and partner with the County, NCDOT, and CAMPO to implement a safe, comprehensive pedestrian network within Wendell and the surrounding area.

- Adopt new development standards for sidewalks: Sidewalks are a necessary element in urban areas that have higher land use densities and more pedestrian activity. Sidewalks downtown and in mixed-use activity centers should be 8-12 feet wide with at least a 5-foot wide clear width for walking plus a furniture zone next to the street (for benches, waste receptacles, poles, street trees and newspaper racks). Consideration should also be given to an edge zone next to buildings that would allow space for plants and people to stand while window-shopping and café tables if adjacent business owners want to offer sidewalk service to their customers.

  In other areas, a network of sidewalks, multi-use paths, and trails should serve pedestrians. In general, sidewalk widths should be a minimum of 5 feet in residential neighborhoods with at least a 5-foot wide planting strip. Sidewalks adjacent to the street without a buffer (planting strip) should be discouraged in the interest of pedestrian comfort. Sidewalks along thoroughfares should be 5 to 6 feet wide. Specific location of sidewalks and pedestrian facilities as well as associated design features should be determined during the completion of the pedestrian plan.

Greenways

The towns of Wendell and Zebulon commissioned the development of a joint *Open Space & Greenway Master Plan* in 2002. The plan details opportunities to establish a network of open space and greenways that connects Wendell with the area's natural features, important destinations, and neighboring municipalities. The plan envisions a coordinated network of open space and greenways that better manages the area's natural features while providing opportunities for passive recreation and accommodating walking and bicycling as viable forms of transportation. The plan designates several potential greenway corridors, including:

Source: Michael Ronkin

Walkers and cyclist on a greenway path

- Little River to provide a major north-south greenway corridor
- Zebulon-Wendell greenway
- Marks Creek to connect Wendell with Knightdale and provide access to Carver Elementary School
- Buffalo Creek to connect Wendell with Knightdale and provide access to East Wake High School

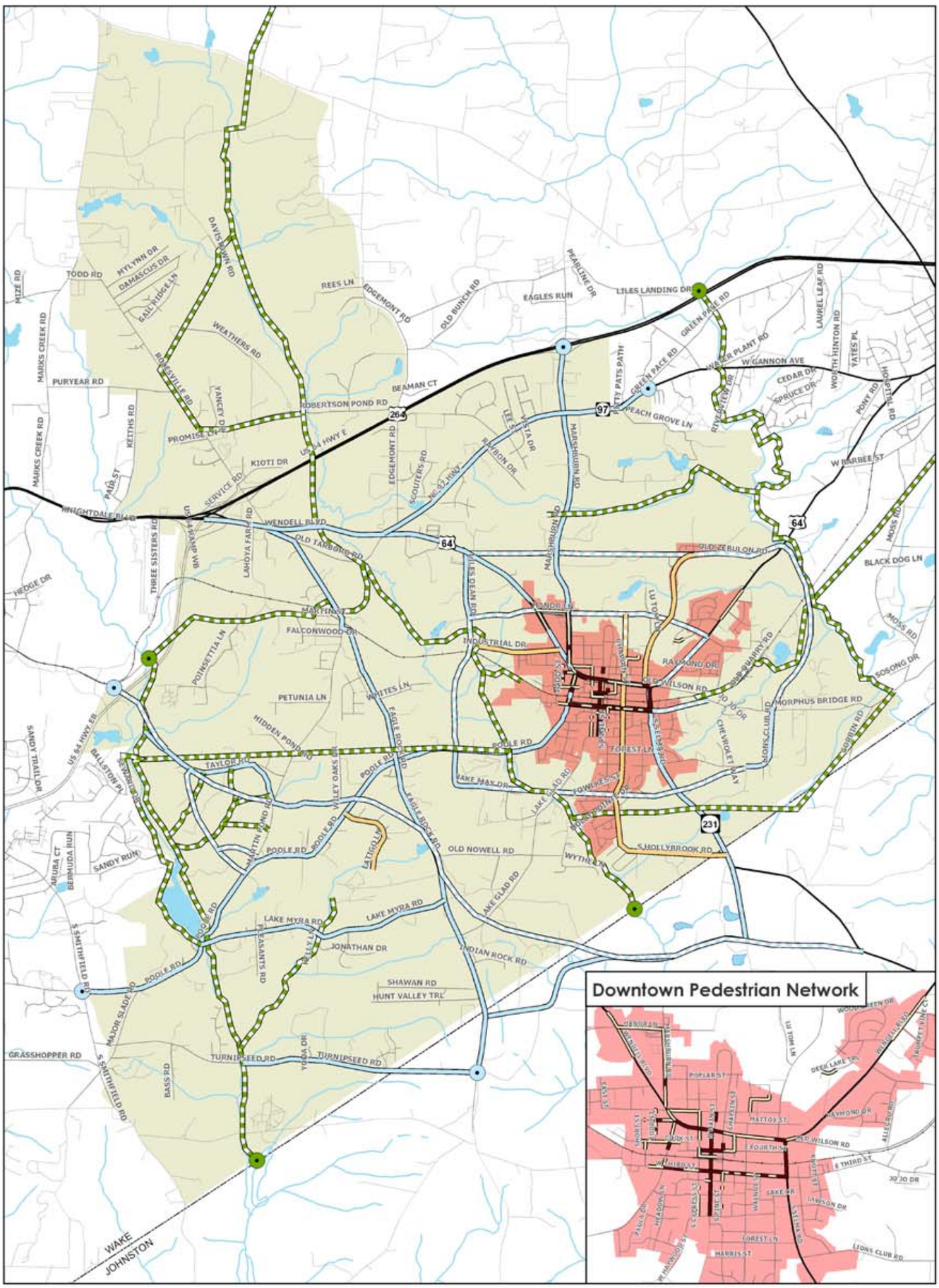
Greenways Recommendations

- The Town should continue to work with neighboring municipalities to develop connections that emphasize walking and bicycling as a recreational activity and mode of transportation while protecting natural resources.

- Wendell should work with Zebulon to review progress in implementing the 2002 Greenway Master Plan.

- The Town should continue to reference the Greenway Master Plan as land develops and to reserve or acquire greenway easements through the development process to ensure consistency with the plan's objectives and to encourage new connections to the greenway system.

- Consider new greenway opportunities that have become apparent through this planning process, epecially in floodplains and utility easements that were not part of the area studied in the 2002 plan.



The Town Plan of Wendell

PEDESTRIAN AND BICYCLE FACILITIES

- Study Area
- Town of Wendell
- County Boundary
- Bodies of Water
- Rivers and Streams
- US Highways
- State Highways
- Local Roads
- Railroads
- Existing Sidewalk (One Side)
- Existing Sidewalk (Both Sides)
- Proposed On-Street Facility (Existing Roadway)
- Proposed On-Street Facility (New Roadway)
- Proposed Bike Route (Existing Facility)
- Proposed Bike Route (New Facility)
- Existing Greenway
- Proposed Greenway

Connection into Regional System

- On-Street Facility
- Greenway

Bikeways

Bicycling provides both transportation and recreational opportunities for the citizens, employees, and visitors of Wendell. The Plan area includes places that are up to 7 miles from the center of Wendell—a distance traversable by bicycle if adequate bicycle accommodations were provided. A moderate bicycling speed of 10 to 15 mph puts even the farthest reaches of what will be the future Wendell town boundary within 30 minutes or less cycling distance of the downtown (the amount of time it takes to walk 1.5 miles).

A review of the existing roadway network finds that the combination of missed opportunities and rapid development surrounding the Town threatens its ability to maintain a safe and convenient transportation system for bicycles. Most of the streets in Wendell are primarily designed for motorized vehicles at the expense of bicycling and walking. Within the grid street pattern downtown, lower traffic volumes and slow travel speeds allow bicyclists to mix with traffic. Otherwise, there are no specific on-street bicycle facilities in Wendell.

Bicyclists can use greenways and multi-use paths with pedestrians or mix with motor vehicle traffic on roadways. On-street bicycle facilities can range from signed bike routes to wide curb lanes with no striping to marked bicycle lanes to off-road bicycle paths. The target user for each application and the unique circumstances of the particular roadway help to determine the bicycle treatment that is most appropriate. For example, on streets and roads with relatively low automobile volumes and slow travel speeds, individuals often feel comfortable bicycling in mixed-flow traffic with no specific bicycle facilities provided. Marked bicycle facilities or adjacent bicycle paths are desirable as traffic volumes and travel speeds become higher.

Bikeways Recommendations

The most appropriate bicycle network for Wendell is a combination of the four design elements previously mentioned. With an emphasis on the needs of the "basic user" (the majority of adults and teenagers who ride occasionally for recreation and/or transportation), certain design elements will be preferred to provide comfortable direct access to destinations. The preference among the four design treatments for any one street segment will be a function of traffic volumes, travel speeds, right-of-way constraints, adjacent land uses, and route directness.

- The Town of Wendell should complete a town-wide bicycle facilities plan for providing an interconnected bicycle system that connects local residents and visitors to the area with close-by destinations. Upon completion of the plan, the Town should act on the conclusions and recommendations from the study to target improvements to the bicycle environment in the Capital Improvement Plan and/or partner with NCDOT and CAMPO for implementing a safe, comprehensive bicycle network within Wendell and the surrounding area.

- In the meantime, bicycle accommodations (in the form of shoulders, bike lanes, or wide outside lanes) are recommended for the following roadways:

  - Buffalo Road
  - Eagle Rock Road
  - Hollybrook Road
  - Jake May Drive
  - Lake Myra Road
  - Liles Dean Road
  - Lions Club Road
  - Marshburn Road
  - NC 97
  - Old Zebulon Road
  - Poole Road
  - Richardson Road
  - Selma Street
  - Stotts Mills Road (Johnston County)
  - Taylor Road
  - Turnip Seed Road
  - Wendell Boulevard

Bicycle Facility Types

The 'toolbox' for implementing bicycle improvements usually contains at least four facility types: wide travel lanes, on-street bicycle lanes, and multi-use paths (or trails), and bicycle routes. These facilities are generally characterized as follows:

Wide Travel Lanes – A wider outside travel lane allows a motorist to safely pass a bicyclist while remaining within the same lane of travel. This improvement is considered a significant benefit and improvement for experienced and basic cyclists. Fourteen feet is typically recommended for the width of a travel lane meant for use by both motorists and bicycles. Continuous stretches of pavement wider than fifteen feet may encourage the undesirable operation of two motor vehicles in one lane. Wide outside lanes are most appropriate on arterial streets. If prevailing vehicle speeds exceed 50 mph, consideration should be given to paving a wide shoulder or building a shared multi-use path.

On-Street Bicycle Lanes – On-street bicycle lanes form the portion of the roadway that has been designated by striping, signing, and pavement markings for the preferential or exclusive use by bicyclists. Bicycle lanes make the movements of both motorists and bicyclists more predictable. State and national design manuals for the construction of on-street bicycle lanes generally recommend a minimum of four feet of pavement measured from the edge of gutter for a bicycle lane (that is, not including the width of the gutter pan). Adjacent to on-street parking, the width of a bicycle lane should be increased to six feet. Striped bicycle lanes are most appropriate on arterial and collector streets. Street sweeping is essential for bike lanes so that debris that is normally swept away by motor vehicle traffic can be removed for cyclists.

Shared Multi-Use Paths – Shared multi-use paths (or trails) can serve bicycles and pedestrians in one "non-motorized" transportation corridor either adjacent to, or completely independent of the street system (such as a greenway). One path usually accommodates two-way travel and is constructed eight to twelve feet in width to facilitate passing and mixing of modes. These facilities are typically separated from a motor vehicle travel lane by five feet or more. One drawback to shared, multi-use paths is the number of safety conflicts at intersections and driveways presented by having a two-way facility on only one side of the street. The location of destinations along the path may also lead to additional street crossings made to access homes and businesses opposite the path. Shared multi-use paths are most appropriate on sides of streets that have few driveways because driveway conflicts can lead to high crash rates involving bicyclists. (Avent Ferry Road in Raleigh is an example of a corridor with too many driveways where the City removed the shared multi-use path several years ago due to crash concerns.)

Bicycle Routes – In some instances, a portion of the community's existing street system may be fully adequate for efficient bicycle travel without conventional bike lane signing and striping. The most common example of this is in residential neighborhoods where low traffic volumes and low travel speeds allow bicyclists to comfortably mix with traffic. Typically, the posted speed limit on these streets should be less than 25 miles per hour for these unmarked facilities. Where appropriate, trail-blazing signage may be installed to designate "bicycle routes" on some of these streets to alert bicyclists to certain advantages of the particular route over other routes. This is most appropriate when hoping to provide continuity with other bicycle facilities and designate preferred routes through high-demand corridors. Signed bicycle routes are most appropriate on residential collector and local streets plus short stretches of arterial streets as needed to maintain continuity of a bicycle route.

- Several area roads are recommended for designated bike routes:
  - Industrial Drive
  - Latigo Lane
  - Main Street
- As new developments are proposed, the Town should require developers to construct appropriate bicycle facilities on new collector and thoroughfare streets or to reserve right-of-way for bicycle facilities on existing roadways that may be improved at a later date.
- The Town should also ensure that all NCDOT roadway projects in the Plan area (including resurfacing projects) are built with appropriate bicycle and pedestrian facilities.

Public Transit

Nationally, public transportation is increasingly being recognized by regional planning agencies as an important tool to focus urban development in a sustainable development pattern that is more clustered and more efficient to provide public services. Residents of transit-supportive activity centers reap the benefits of alternative modes of transportation that result in significant savings in cost and time and reduction in stress associated with traffic congestion. Public transportation is being viewed as a popular short and intermediate term strategy to avoid congested highways between major metropolitan areas.

Transit is a viable option when it is fast, frequent, dependable, and easy to use, and it goes where people need to go, when they need to get there. In the future, one or more activity centers in Wendell may contain sufficient density of residents to support bus routes. An emerging concept for communities without sufficient density to support transit is transit-ready development. For transit-ready development, communities prepare for future transit expansion by developing a mix of uses in a pedestrian-friendly layout at locations appropriate for future transit service. Transit-ready developments rely on a grid street pattern that provides abundant connections. Transit service to and through Wendell rightfully is part of a larger debate ensuing in the Triangle region. The recent action by the Triangle Transit Authority to withdraw its application for full federal funding agreement to build a regional rail system forces a fresh look at the vision for transit here. Municipalities that have been successful raising patronage for public transportation have provided a well connected web of regional and local transit network thus presenting transit as a reliable mode. The presence of supportive pedestrian and bicycle network is also very important for the success of transit since every transit trip begins and ends with walking and/or bicycling.

Public transportation advantages include:

- A choice to avoid roads congested with traffic
- A viable commuting option to mobility-deprived citizens
- Improving overall health of the citizens by increasing exercise and reducing stress associated with driving
- Creating a balanced transportation system by providing mobility options for people

Public Transit: Existing Conditions

- Fixed Route and Paratransit Service: While the road network could support transit, the lack of concentrated residential and employment centers limits the feasibility of most forms of transit in Wendell. Currently, the Town of Wendell has no fixed route transit service. Paratransit service provided by the Triangle Transit Authority (TTA) is limited to trips that begin and end within 3/4 mile of a fixed route, and thus, unavailable in the Wendell area.
- Ridesharing: According to the 2000 Census, approximately 13 percent (271 of 1989) of workers 16 years and older in Wendell carpooled to work. Most of these workers participated in two-person carpools. TTA reports one van pool that services the Wendell area. The van pool connects Zebulon to downtown Raleigh with stops in Wendell and Knightdale, and riders have the option of boarding Capital Area Transit buses at Moore Square for service beyond downtown Raleigh. This vanpool caters to the 7:30 a.m. to 4:30 p.m. schedule of government workers. Citizens of Wendell also have access to Share the Ride NC, a statewide rideshare matching service. The service uses a database to match interested residents with other individuals that have similar commutes and work hours. Wendell currently does not have any dedicated park-and-ride lots.
- Emergency Ride Home (ERH) Program: The TTA sponsors the ERH program, which provides registered commuters who regularly use alternate modes of transportation with a reliable ride home in case of unexpected personal emergencies or unscheduled delays at work. This free service provides another layer of encouragement to commuters who understand the benefits of alternative modes but worry about being dependent on these modes during emergencies.

Transit Recommendations

While the future of regional commuter transit is being debated and no funding is earmarked for commuter rail service to Wendell, consideration of rail service between Wendell and Raleigh may qualify for demonstration project status if included in the regional transit vision plan and sufficient effort is expended by eastern Wake communities to push the initiative. In the meantime, local communities should develop land uses adjacent to a potential rail corridor to be more conducive for future rail service.

Source: TTA

Regional commuter rail is being considered for the Triangle area

The implementation of a transit system that provides opportunities for local and regional travel will require coordination between Wendell and regional and state agencies. Specifically, the following recommendations should be addressed:

- Require development in locations appropriate for future transit service, such as the neighborhood, village/town, and employment centers identified in this plan, to have a mix of uses and higher density.
- Determine future destination of bus connections in consultation with Zebulon, Knightdale, and other regional partners
- Develop local service in incremental steps as density and land uses warrant
- Continue to work with TTA to develop paratransit service for persons with disabilities in Wendell

Roadways

Existing Conditions

The private automobile is the most widely-used form of transportation within Wendell and its impacts are evident everywhere. Data from the 2000 Census shows the importance of the automobile for Wendell's workers. For workers 16 years old and older that did not work at home, 95 percent (1,893 of 1,989) used an automobile to commute. Of those using an automobile, 85 percent (1622 of 1893) drove alone.

The Town's transportation system outside of the downtown is predicated almost solely on the needs of the automobile and improvements to the transportation system over the last 40 years have been focused almost exclusively on reinforcing the dominance of the automobile as a transportation mode. Today, the downtown grid and radial networks emanating from downtown Wendell continue to provide access and mobility for residents and visitors, but this access is almost exclusively contingent on the ability to own and/or operate a motor vehicle.

Table 2 – Wendell Residents' Journey to Work Modes

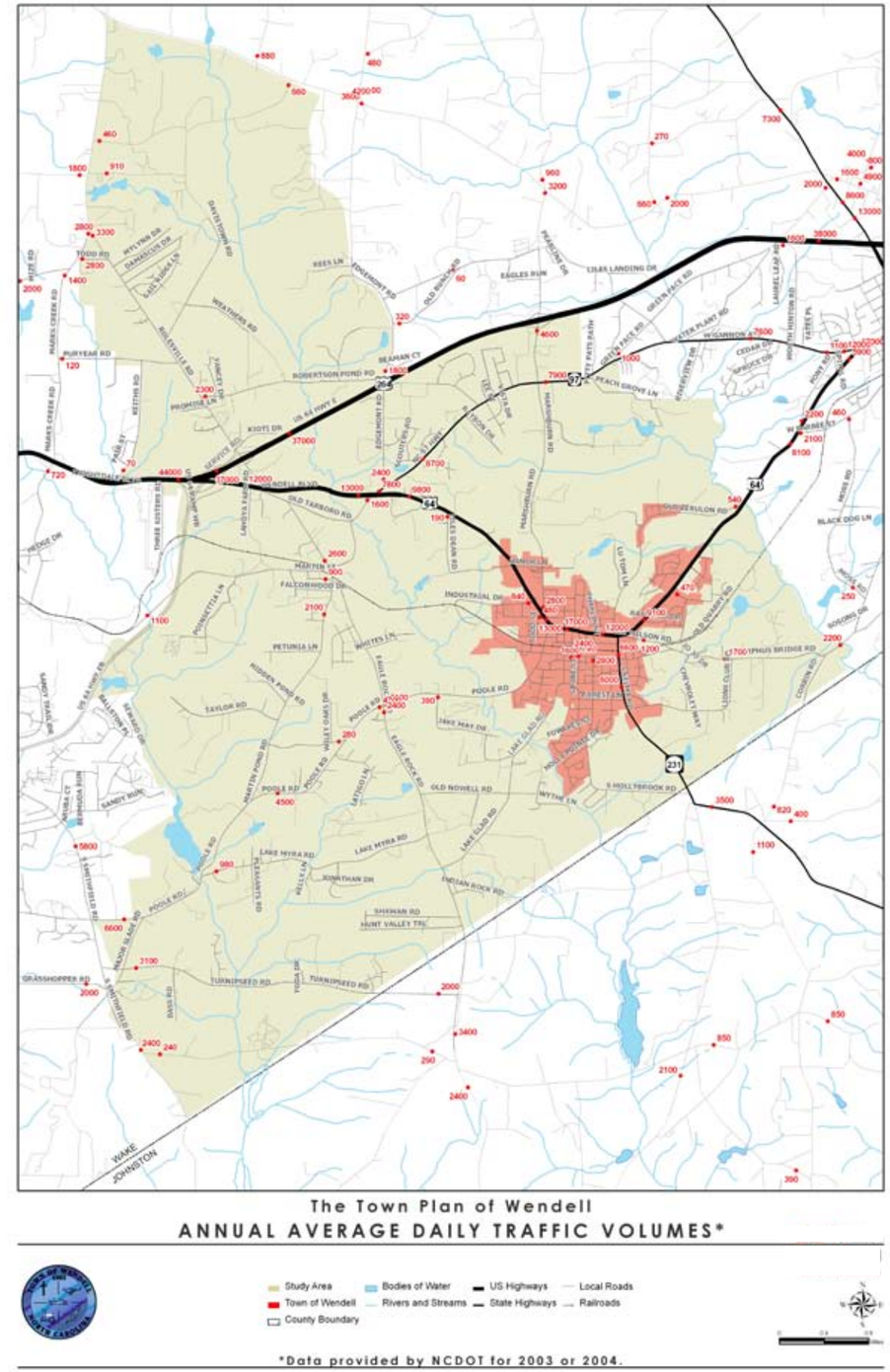
Mode to Work	Number	Percent
Car, truck, or van:	1893	95.2.%
drove alone	*1622*	*81.5%*
carpooled	*271*	*13.6%*
Public Transportation	0	0.0%
Motorcycle	0	0.0%
Bicycle	0	0.0%
Walked	39	2.0%
Other means	10	0.5%
Worked at home	47	2.4%
Total	**1989**	**100%**

Source: 2000 U.S. Census

Table 3 – Existing Traffic Volumes

Corridor	Thoroughfare Type	Cross Section	Speed Limit	Existing Traffic Volumes*	LOS D Capacity **	Level of Service (LOS)
US 64 (Wendell Boulevard)						
US 64 Bypass to Old Battle Bridge Rd	Major	4-lane divided	55 mph	13,000	42,400	A
Old Battle Bridge Rd to Hanor Ln	Major	2-lane undivided	45 mph	9,800	20,000	B
Hanor Ln to Industrial Drive***	Major	2-lane undivided	45 mph	17,000	21,000	C
Industrial Drive to Selma Rd	Major	2-lane undivided	35 mph	17,000	20,000	D
Selma Rd to Town Limits (east)	Major	2-lane undivided	35 mph	9,100	20,000	A
Town Limits (east) to Study Area Boundary	Major	2-lane undivided	55 mph	9,100	19,500	A
NC 231 (Selma Rd)						
Wendell Boulevard to Lion's Club Rd	Major	2-lane undivided	35 - 45 mph	6,600	20,000	B
Lion's Club Rd to Study Area Boundary	Major	2-lane undivided	35 - 45 mph	6,600	20,000	B
Poole Rd/Buffalo Rd						
Study Area Boundary to Eagle Rock Rd	Major	2-lane undivided	55 mph	4,700	20,000	A
Eagle Rock Rd to Wendell Boulevard	Major	2-lane undivided	35 - 55 mph	5,100	20,000	A
Lake Glad Rd/Haywood Rd						
Eagle Rock Rd to Cypress Street	Major	2-lane undivided	45 - 55 mph	1,700	20,000	A
Morphus Bridge Rd						
Wendell Boulevard to Lion's Club Rd	Major	2-lane undivided	35 mph	1,700	20,000	A
Lion's Club Rd to Study Area Boundary	Major	2-lane undivided	35 mph	1,700	20,000	A
Hollybrook Rd						
Wendell Boulevard to Haywood Rd	Minor	2-lane undivided	35 mph	2,800	20,000	A
Haywood Rd to Selma Rd	Minor	2-lane undivided	45 - 55 mph	2,800	20,000	A

Source: NCDOT, 2003 or 2004
** Average Annual Daily Traffic Volume, expressed as vehicles per day on a typical weekday*
*** Level of Service D Capacity based on the Triangle Regional Travel Demand Model.*



Traffic Volumes and Levels of Service

NCDOT regularly collects traffic counts (referred to as Annual Average Daily Traffic or AADT) information for state routes throughout North Carolina. The development of the Transportation Element included a review of these traffic volumes within the study area to determine if any roads are experiencing heavy traffic volumes. Table 3 details the road type, speed limit, and traffic volume for several important corridors within the study area. The map on the preceding page (Average Annual Daily Traffic) illustrates recently recorded traffic volumes for roadways in Wendell. Table 3 also details maximum service volumes and current level of service for these roadways.

The roadways shown in Table 3 were evaluated on the basis of their level of service (LOS). Roadways were ranked on a lettered scale of A to F, with level of service 'A' representing the best operating conditions and level of service 'F' the worst operating conditions. Following is a description of the various levels of service categories as outlined in the Highway Capacity Manual 2000 (HCM 2000):

- Level of Service A – Primarily free-flow operations (no back-ups) at average speeds. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream.
- Level of Service B – Reasonable unimpeded operations at average travel speeds. The ability to maneuver within the traffic stream is only slightly restricted.
- Level of Service C – Stable operations. Ability to maneuver and change lanes may be more restricted than in LOS B.
- Level of Service D – Borders on a range on which a small increase in flow may cause substantial increases in the approach delay and hence decreases in travel speed.
- Level of Service E – Significant delays and average travel speeds of one-third the free flow speed or slower.
- Level of Service F – Traffic flow at extremely low speeds. Intersection congestion is likely at critical signalized locations with high approach delays.

Level of service for the corridors in Table 3 was evaluated using the North Carolina LOS model to represent the highest number of vehicles that could be accommodated for a given level of service (e.g., LOS D). A number less than the value represented in the LOS D capacity indicates that a segment operates at a level of service of C or better. Table 3 shows all but two segments operate at LOS C or better.

Traffic Safety and Crash History

Nine corridors within the study area were analyzed using crash data obtained from the NCDOT over a three-year period (June 1, 2003 to May 31, 2006). Table 4 shows the total number of crashes, corridor crash rates, corridor length, equivalent property damage only rate, majority causational factor, and the statewide average crash rate for each type of facility. A crash "rate" is defined as the number of crashes per 100 million vehicle-miles traveled.

Relative to other roadways in the study area, the greatest *number* of crashes occurs on the most heavily traveled facilities. However, there is a crash *rate* problem on five roadway corridors. The majority of those crashes are caused by opposing movement collisions (angle or turning movement). From mid-2003 to mid-2006, the crash rate exceeded the statewide average on the following roadways:

- Main Street: crash rate is more than 4 times the statewide average for similar types of roads
- Hollybrook Road: crash rate is 4 times the statewide average
- Third Street: crash rate is more than 2 times statewide average
- Cypress Street: crash rate is 1.25 times statewide average
- Morphus Bridge Road: crash rate is 1.21 times statewide average.

Traffic Safety Recommendations

- Detailed site investigations of high-crash corridors listed above are recommended.
- Applications to NCDOT for spot-safety funds and/or discretionary funds may be appropriate.
- Sight distance reviews and updates of traffic-regulatory signs and markings are recommended.
- Techniques to manage access to adjacent sites may be necessary if turning traffic contributes significantly to the crash history. Medians and driveway improvements are two primary techniques for managing access. Conversion to right-in, right-out only access is a proven method for reducing turning conflicts that lead to turning-type crashes.

Table 4 – Crash Statistics

Corridor	Corridor Length (Miles)	Total Crashes	Majority Crash Type	EPDO Rate*	Crash rate (per 100 MVMT**)	Statewide Average Crash Rate***
US 64 Business/Wendell Blvd	4.25	91	Rear End	396.2 ****	187.85	323.56
Selma Rd	1.64	28	Rear End	155.6	247.27	345.41
Poole Rd	1.88	23	Angle	82.2	210.61	355.13
Hollybrook Rd	2.34	21	Angle	102.4	1637.66	407.28
Third St	1.16	21	Angle	87.6	1101.18	407.28
Marshburn Rd	2.1	18	Left Turn	160.4	177.74	407.28
Main St	0.48	16	Left Turn	30.8	1900.85	407.28
Morphus Bridge Rd	1.5	12	Fixed Object	49	429.37	355.13
Cypress St	0.77	12	Angle	49	507.83	407.28

Source: North Carolina Department of Transportation
** EPDO Rate = Equivalent Property Damage Only Rate*
*** MVMT = million vehicle miles traveled*
**** State average for comparable roadway types (based on laneage and route type)*
***** Fatal crash occurred*

Roadway Network

A traditional philosophy of street planning is embodied in this plan; that is, an interconnected network of community-friendly streets that provides for safe, effective and efficient movement of all modes of travel including walking, strolling, jogging, strollering, roller-blading, cycling, riding and driving. The main strategy is to disperse traffic rather than rely on a few wide streets to carry higher traffic volumes. The map on the following page (Recommended Road Network) shows the existing and recommended network of thoroughfares and collector streets as presented in the *Town of Wendell Collector Street Plan*.

Roadway Network Recommendations

Transportation professionals typically consider capacity improvements (road widenings) to address congested links in the transportation network. However, Town officials have learned from other municipalities throughout the country that excessive roadway widening generally serves as only a short term solution and that it may actually encourage additional "through traffic" to the area. Therefore, Town officials should discourage excessive road widening of major and minor arterials in the area in order to protect the identity of Wendell. Instead, focus for increasing roadway capacity should be placed on ensuring a complete roadway network with many route choices.

Traditionally, congestion problems are addressed with either supply-side or demand-side strategies. Supply side strategies may include tactics such as building more roads to increase capacity. Demand-side strategies may include tactics such as encouraging more ridesharing among commuters or encouraging development that allows citizens to have choices in their mode of travel rather than simply relying on the autombile for all trips. The Town of Wendell should be proactive in addressing mobility needs within the community using both supply-side and demand-side strategies.

The proper dispersal of traffic should be accomplished based on the following recommendations:

- A network of different sized streets (arterial, collector, and local) spaced appropriately and sensitive to topography, existing development, and other pre-existing constraints should be built.
- The Subdivision Ordinance should be updated to adopt stronger language for interconnectivity. The ordinance should "require" instead of just "encourage" street interconnectivity. Specifically, one connection in each cardinal direction should be required unless prohibited due to severe topography, in which case a bridge or at a minimum a trail connection for bicyclists and pedestrians should be required.
- Wendell has multiple layers of east-west roadway corridors from which travelers can choose. However, development of the network of north-south roads proposed in the Recommended Road Network map (page 61) should be prioritized.
- Conduct a location study for fire stations and EMS locations that will optimize response times to all parts of Wendell.

Low Intensity | Medium Intensity | High Intensity

Land Use/Type of Collector Street	Intensity	Access Function	Approximate Street Spacing
Low Intensity Residential	Less than 2 dwelling units per acre	High	3,000 to 6,000 ft apart
Medium Intensity Residential	2 to 4 dwelling units per acre	High	1,500 to 3,000 ft apart
High Intensity Residential	More than 4 dwelling units per acre	High	750 to 1,500 ft apart
Activity Center	Mixed-use residential/commercial	Medium	750 to 1,500 ft apart

Street Design

"Complete Streets" is a national initiative to transform transportation corridors from motor vehicle-dominated thoroughfares into community-oriented streets that safely and conveniently accommodate all modes of travel. The "complete streets" concept recognizes the design of streets as critical to the function of the transportation system as well as the community's sense of place. The guiding principles for this Plan demonstrate Wendell's commitment to growing a town that would be served by complete streets.

Street Design Recommendations

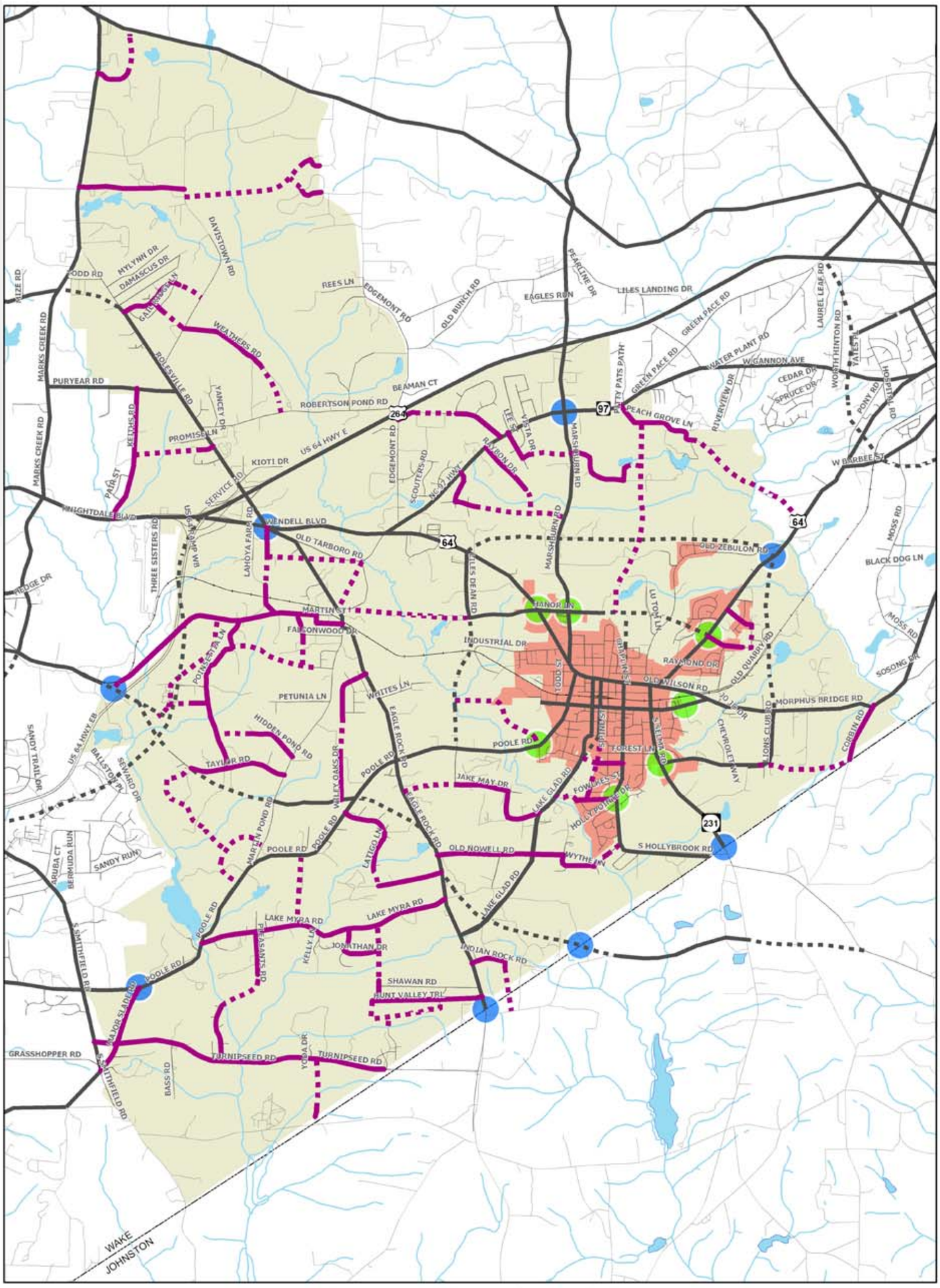
- The Town should adopt a complete streets policy based on the multi-modal principles in this document. Such a policy would mandate that all new or improved roadways include provisions for non-motorized modes, primarily walking and bicycling.
- The codes and ordinances should be updated to include street design recommendations contained in the *Town of Wendell Collector Street Plan* (CSP). The CSP considers how urban design, land use, and transportation can come together to create a desirable sense of place within the public right-of-way. The plan identifies guidelines for street spacing as well as design elements such as travel lane width, lighting, street trees, on-street parking, and traffic calming devices. Detailed information on pedestrian and bicycle circulation emphasizes the shared relationship between modes. Similar context appropriate standards for local streets should be developed and included in the ordinances as well.

Gateways

Current corridors in the Wendell area do not introduce motorists and other users to the Town in general or the downtown area in particular. While a noticeable change in character may clue visitors to their presence downtown, gateway elements would be a better way to mark entrance to Wendell and its downtown. Gateways use visual cues within the right-of-way to announce the unique features of an area. Typically, streetscape investments hold a 3-to-1 advantage that returns three dollars of private re-investment for each dollar of public money invested in streetscape improvements. Some cities have noticed vastly higher levels of private sector response. Streetscape investments are currently underway in Zebulon, Raleigh, Wake Forest, Cary, Durham, Rocky Mount, and Greenville.

Gateway Recommendation

Gateway elements and investments in streetscapes downtown and in signature Wendell corridors can greatly enhance civic pride, retain current businesses, and lead to recruitment of new businesses. The Recommended Road Network map on the following page shows potential general locations where Wendell and downtown gateway elements are appropriate. The two types of gateways should be similar in design. However, some distinction such as signage or a signature lighting element should be made between the Wendell and downtown gateways



The Town Plan of Wendell
RECOMMENDED ROAD NETWORK

Study Area
Town of Wendell
County Boundary
Bodies of Water
Rivers and Streams
Local Roads
Railroads

CAMPO Thoroughfare Plan
Existing Thoroughfare
Proposed Thoroughfare

Collector Street Plan
Existing Collector
Proposed Collector

Gateway Locations
Wendell
Downtown

WENDELL BOULEVARD: PRESERVING COMMUNITY CHARACTER

Wendell Boulevard (US 64 Business) is the signature east-west corridor within the community. It serves a dual role as the gateway connection to downtown Wendell for visitors from Raleigh and a local street satisfying the needs of in-town mobility and accessibility to adjacent land uses. Public sentiment expressed during the planning process suggests a new vision for Wendell Boulevard is needed. Citizens want the corridor to be safer, more efficient, and aesthetically pleasing. Town officials and residents recognize the importance of this corridor for reinforcing the small-town feel and historic character of Wendell, and oppose roadway widening as the only solution for relieving traffic congestion within the community.

Wendell Boulevard is presented in the framework plan as a special gateway corridor, distinguished because of immediate development pressures and the important linkage that the corridor provides to historic downtown. A strategic plan for influencing land use patterns and development types within the corridor is recommended in a more detailed planning process, however this Plan generally recommends that it be an area for professional office and service uses and some higher density residential uses. Detailed design recommendations for redesigning the public right-of-way and roadway infrastructure in this corridor will need to be defined in the same planning process. However, general recommendations for the Wendell Boulevard corridor presented in this Plan emphasize safety, mobility, and aesthetic elements consistent with the intent of the special gateway corridor.

Corridor Description

Wendell Boulevard is a major thoroughfare between US 64/264 and Old Zebulon Road that measures approximately 5.11 miles in length. From the west, the corridor begins as a four-lane, divided highway with a posted speed limit of 55 miles per hour. Directional travel is separated by a 40-foot center median. Crossing Old Battle Bridge Road, the corridor transitions into a two-lane, undivided highway with a posted speed limit of 45 miles per hour. Within town limits, the posted speed limit lowers to 35 miles per hour. A three-lane section exists between Hanor Lane and Industrial Drive to accommodate a continuous left turn lane for adjacent commercial businesses and the Town's fire station. Within downtown, the corridor exists as a two-lane, undivided facility. East of the town limits, the posted speed limit for the two-lane highway returns to 55 miles per hour.

The entire corridor generally lacks sidewalks and street trees with the exception of downtown. Utility poles are present for a majority of the corridor, and drainage reflects development intensities, open swale in rural areas and curb-and-gutter in urban areas. Right-of-way within the corridor varies between 60 and 125 feet.

Current Issues

Roadway Capacity

Existing (2004) traffic volume data maintained by the North Carolina Department of Transportation indicates that all segments within the corridor are operating at or below reported roadway capacities. The most congested areas exist between Hanor Lane and Selma Road, where almost no remaining capacity exists for additional traffic. An earlier study (*Wendell Boulevard Corridor Study*, Parsons-Brinkerhoff, July 2000) analyzed potential solutions for the corridor and recommended costly improvements at nearly all signalized and unsignalized intersections. Widening of the entire corridor to four lanes is not recommended in earlier studies because the assumption that additional east-west thoroughfares will be added to the overall transportation system, thus diffusing traffic impacts across a grid system of streets. Town officials have learned from other municipalities throughout the country that roadway widening generally serves as only a short-term solution. This Plan also does not recommend widening Wendell Boulevard for additional travel lanes based on the improvements recommended in the future road network.

Wendell Blvd Corridor: Quick Facts

- 5.11 miles in length
- 60–25 ft of right-of-way
- 9,000–7,000 ADT (average daily traffic)
- 35–55 mph posted speed limit

Within the recommended road network, two new east-west thoroughfares are considered that will relieve anticipated traffic congestion for Wendell Boulevard. A northern link will extend between Liles Dean Road and Old Zebulon Road and relieve through traffic in the downtown area. The Parsons-Brinkerhoff study of the corridor (*Wendell Boulevard Corridor Study*, July 2000) concluded that up to 25% of the traffic anticipated for Wendell Boulevard could be diverted with construction of the northern thoroughfare. A second proposed east-west thoroughfare extends between US 64/264 (near the proposed Wendell Falls development) and NC 231 (Selma Road) in Johnston County. Plans for the thoroughfare include a new interchange at US 64/264, which should attract a significant amount of anticipated traffic from Wendell Boulevard heading to points west and south of downtown.

Accident Data

Accident data for the transportation system is summarized earlier in the transportation section. Although the corridor accounts for the highest total number of crashes in the study area, its crash rate is actually one of the lowest of the major roads in the study area. Anecdotal evidence from Plan participants indicated that the intersection of Wendell Boulevard and NC 97 is perceived to be a dangerous location and that local residents are concerned about speeding in the corridor.

Statistics maintained by the North Carolina Department of Transportation indicate that the majority of crashes on Wendell Boulevard are rear end collisions. Rear-end collisions commonly occur as the result of sudden stops coupled with inadequate following distance. The potential for rear-end collisions greatly increases on roadways with inadequate sight distance and/or excessive speed differentials caused by traffic control devices, frequent driveways, unprotected turning movements, and a mix of motor vehicles types (cars and large trucks). The Wendell Boulevard corridor has many of these characteristics.

Intersection Operations

Local drivers in Wendell can quickly list intersections along the corridor that cause frustration for traveling between close-by destinations. These include intersections located within the downtown area between Main Street and Old Zebulon Road; the immediate environs surrounding Wendell Elementary School; and the intersection of Wendell Boulevard, Selma Road, and Old Wilson Road. These locations should be the subject of in-depth studies for formulating feasible design solutions.

Generally, intersections and driveways within the corridor are efficient and provide safe environments. However, anticipated traffic volumes for the corridor could necessitate intersection improvements that include one or more exclusive turn lanes on certain approaches. The intersection improvement recommendations of the earlier *Wendell Boulevard Corridor Study* (Parsons-Brinkerhoff, July 2000) are no longer applicable because construction of a proposed southern bypass between US64/264 and NC 231 (Selma Road) with a new interchange at US 64/264 would have a significant impact on travel patterns in the community and the corridor. The extent of improvements recommended for key intersections within the corridor should be the subject of more detailed and updated studies.

Reinforce the Community's Sense of Place

Each community leaves an impression on those who live within it and those who simply visit. This impression is sometimes referred to as a "sense of place," which implies a distinct image unique to each community. Whether built around a tangible element—such as a park or a sculpture or a group of buildings; or a community's style as evidenced by streetscape elements, signs, or general architecture—a sense of place is critical to a community. The Town of Wendell should identify the key elements of its sense of place and reinforce these through appropriate planning for the Wendell Boulevard special gateway corridor district.

With the exception of the section through downtown, Wendell Boulevard does little to distinguish itself from most major thoroughfares in North Carolina. Gateway features are noticeably missing from the US 64/264 exit ramps, and new development pressures along portions of the corridor reflect currently weak regulatory tools that result in prototypical strip development reminiscent of so many suburban communities.

Some elements Town officials should consider when identifying its sense of place for the corridor include gateways themed through landscaping, signage, or public art; overall landscaping or streetscaping to emphasize certain areas; or materials used consistently in buildings, streets, greenways, or sidewalks. Consistent decision-making regarding what land uses and design treatments are appropriate adjacent to the transportation corridor will reinforce Wendell's sense of place for this signature corridor.

Provide Travel Mode Choices

The physical distance between destinations within the corridor tends to promote automobile travel. Furthermore, safe, convenient facilities are not available for pedestrians and bicyclists (especially outside of the downtown area). Increased traffic volumes means less mobility for Wendell's citizens and others traveling to the community.

One solution for increasing the "livability" of the corridor while establishing a "sense of place" reflective of the community is a commitment to the principles of complete streets. "Complete Streets" are designed to balance mobility, safety, and aesthetics for everyone using the corridor, including motorists, pedestrians, cyclists, and property owners. Design considerations supportive of complete streets include elements in both the traditional travel corridor (i.e., the public realm) as well as adjacent land uses (i.e., the private realm) for reinforcing the desired 'sense of place'. Town officials should adopt the principles of complete streets for implementing improvements in this special gateway corridor.

A New Vision for Wendell Boulevard

With construction of proposed parallel east-west major thoroughfares and a new freeway interchange, Town officials envision a safer, more efficient, and aesthetically pleasing Wendell Boulevard that serves as the gateway to downtown for visitors from Raleigh and points west, as well as a destination in its own right for a mixed-use corridor that complements and enhances the downtown area.

The community's vision does not support widening any portions of Wendell Boulevard to accommodate additional through travel lanes. The posted speed limit for the corridor should range from 25 to 45 miles per hour. Two travel lanes in each direction separated by a landscaped median, complementary street trees setback from the edge of pavement, and context-based wayfinding signage and gateway monuments alert motorists from the north and west that they have entered the Town of Wendell.

East of NC 97, recommended improvements include one travel lane in each direction. A well-designed, raised-curb median separates the two travel lanes. Street trees flank both sides of the road, and on-street bicycle lanes provide a safe, efficient alternative for travel consistent with "complete street" design principles. In downtown, the center median is eliminated, and on-street bicycle lanes are dropped in favor of less congested alternative routes (potentially Third Street). Wide sidewalks and large planting strips fill the void left by the center median and on-street bicycle lanes.

East of Selma Road, the raised-curb median returns to separate the two travel lanes. Landscaping in the center median, complementary street trees, and context-based wayfinding signage and gateway monuments reinforce design themes established near the US 64/264 freeway interchange for visitors traveling from points east of Wendell. Beyond Raymond Drive, on-street bicycle lanes return to the cross section to meet up with the bicycle route proposed through downtown.

Throughout the corridor, a limited number of new driveways will

be safely spaced apart to minimize congestion and maximize public safety. Driveway entrances into sites will be clearly signed and well-organized following the principles of access management to permit commerce in a safe environment.

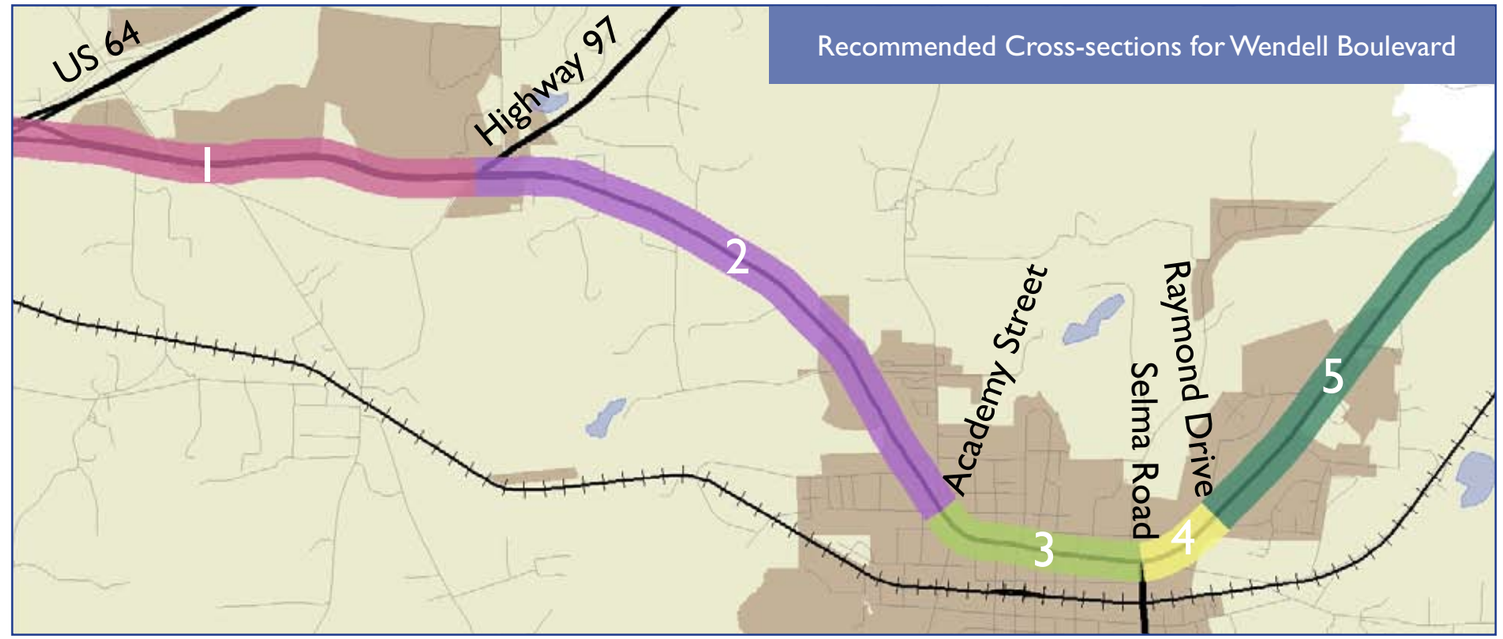
Recommended Cross-sections for Wendell Boulevard

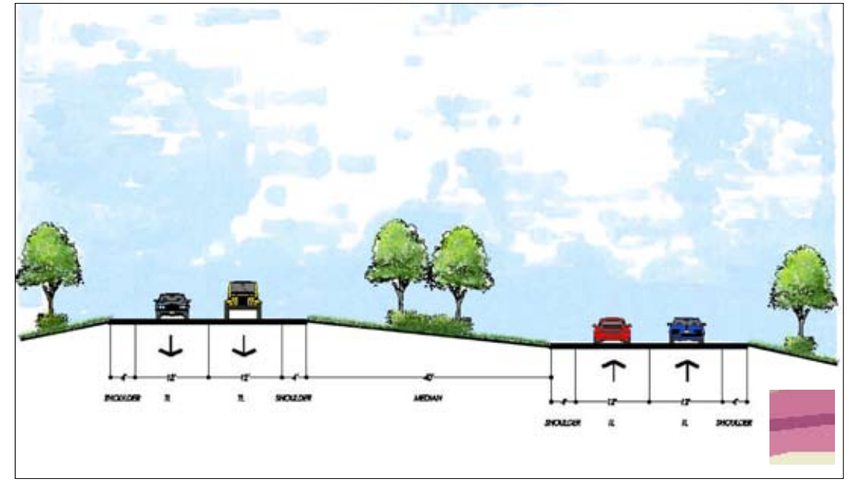
The following section diagrams, which correspond to the colored sections of the map at right, show how Wendell Boulevard can support the transportation role of the roadway without compromising the small town charm in downtown Wendell. The diagrams represent typical cross sections recommended for the corridor that should be considered for more detailed planning studies that result in conceptual design plans and a design palette for streetscape improvements. Their application to specific location will depend largely on driveway locations, signal operations, and adjacent land uses.

The typical cross sections capture a range of rights-of-way from 60 feet to 125 feet. Design treatments and proposed widths for basic design elements such as center medians, sidewalks, bicycle lanes, or planting strips are somewhat variable and subject to the context of the surrounding built environment that will be the subject of future land use studies for the special gateway corridor.

Further Studies

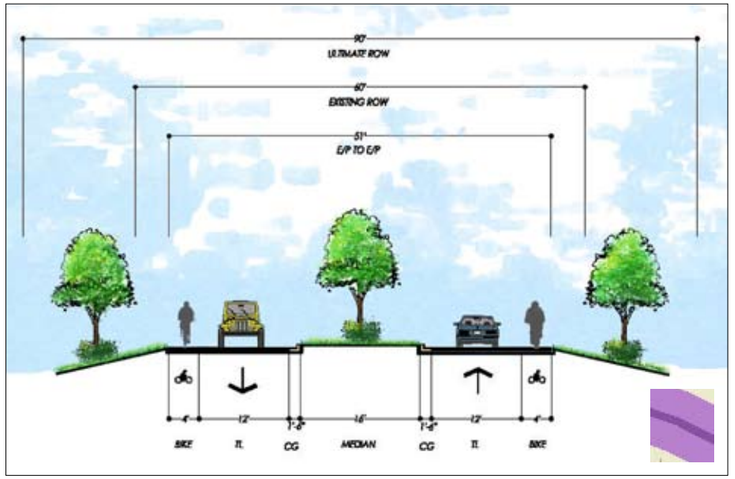
The Town Plan focuses on general recommendations for Wendell Boulevard rather than design recommendations for addressing site specific issues that will need to be studied in further detail prior to implementation. Building on the momentum of this Plan, officials should undertake more in-depth studies of the corridor to evaluate desired land use and development patterns and consider field survey data, driveway locations, an overall access management plan, and more detailed traffic analyses for targeting transportation-related improvements within an engineered conceptual design plan.





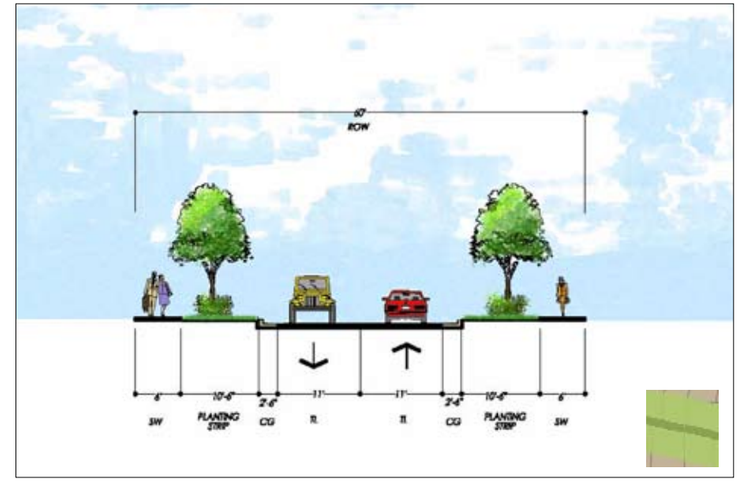
1: Wendell Blvd: US 64/264 to NC Hwy 97

This segment from US 64/264 to NC Highway 97 measures approximately 1.32 miles. The entire length maintains a four-lane, divided cross section with 12-foot travel lanes and 4-foot inside and outside shoulders. Directional travel is separated by a 40-foot center median. Street trees are proposed for both the center median and outside verge areas. Town officials should formally request a reduction in posted speed limit to 45-mph for this segment of the corridor from the North Carolina Department of Transportation (NCDOT) to further other goals stated in the Town Plan. Officials for NCDOT in attendance at the planning charrette were supportive of the request.



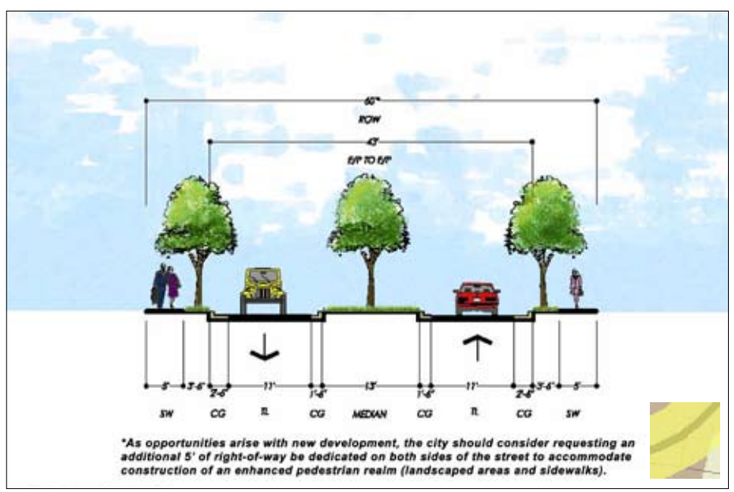
2: NC Hwy 97 to Academy Street

The segment from NC Highway 97 to Academy Street measures approximately 2.01 miles. The entire length maintains a two-lane, divided cross section with 12-foot travel lanes and 4-foot on-street bicycle facilities. The center median provides opportunities for left turn lanes at key locations. Street trees are planted in both the center median and outside verge areas. Additional right-of-way may be required to accommodate proposed street trees in the outside verge areas. The posted speed limit remains at 35 miles per hour.



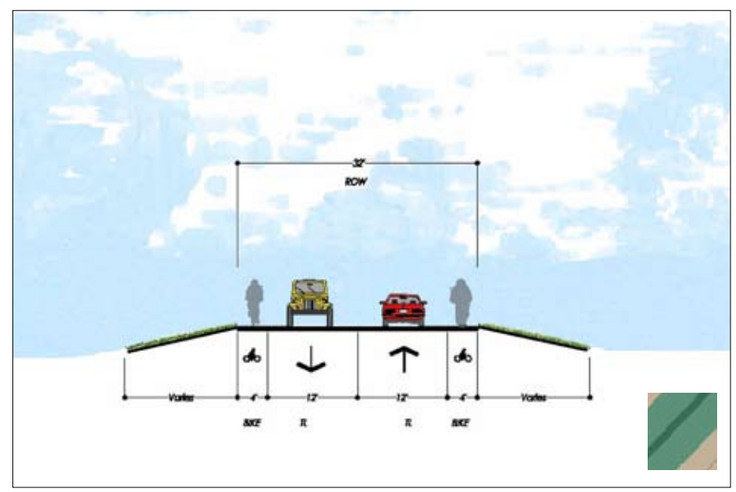
3: Academy Street to Selma Road

The segment from Academy Street to Selma Road measures approximately 0.66 miles. The entire length maintains a two-lane, undivided cross section with 12-foot travel lanes and 2.5-foot curb-and-gutter. Street trees and 6-foot sidewalks are provided along both sides of the street. As this is the most pedestrian-oriented part of the corridor and includes a school zone, Town officials should formally request a reduction in posted speed limit to 25-mph for this segment from the North Carolina Department of Transportation (NCDOT).



4: Selma Road to Raymond Drive

The segment from Selma Road to Raymond Drive measures approximately 0.29 miles. The entire length maintains a two-lane, divided cross section with 12-foot travel lanes and 2.5-foot curb-and-gutter. Street trees and 5-foot sidewalks are provided along both sides of the street. The posted speed limit remains at 35 miles per hour.



5: Raymond Drive to Old Zebulon Road

The segment from Raymond Drive to Old Zebulon Road measures approximately 0.83 miles. The entire length maintains a two-lane, undivided cross section with 12-foot travel lanes and 4-foot on-street bicycle facilities. Town officials should formally request a reduction in posted speed limit to 35-mph for this segment from the North Carolina Department of Transportation (NCDOT) to maximize safety among motorists and bicyclists within the corridor.

Intersection Improvements at Wendell Blvd and Selma Road

During the public charrette, citizens discussed safety concerns and redevelopment opportunities near the intersection Wendell Boulevard, Selma Road, and Old Wilson Road. At the intersection, Wendell Boulevard and Old Wilson Road split to create an awkward and hazardous intersection design. Reconfiguring the intersection combined with redevelopment of adjacent parcels could create an attractive gateway into the downtown from points east while providing safer, more efficient operations at the signalized intersection.

The image below shows one concept for redeveloping land at Old Wilson Road and Wendell Boulevard into a potential neighborhood serving retail use such as a drug store. The conceptual design illustrates how a potential new street connection between Old Wilson Road and Wendell Boulevard could improve safety and efficiency at the intersection with Selma Road by accommodating driveway access and a parking configuration in a safe, efficient, and convenient manner. The images to the right show potential design concepts for the reconfigured intersection of Wendell Boulevard and Selma Road after removing the approach for Old Wilson Road.

Option A - Turn Lanes, Landscaped Medians, and Pedestrian Improvements

Pros and Cons of Roundabouts

Pros:

- *Lower operation and maintenance costs than traffic signal*
- *Safest intersection for vehicles and pedestrians*

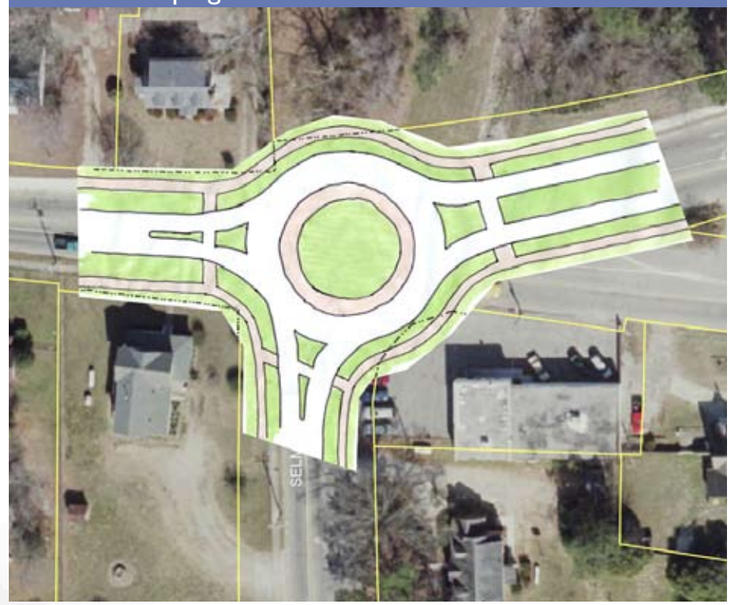
  (Studies show roundabouts provide a 90% reduction in fatal crashes, 76% reduction in injury crashes, 30-40% reduction in pedestrian crashes, 10% reduction in bicycle crashes; Source: Institute for Highway Safety study of 24 roundabout intersections in eight states)
- *High capacity and low delay*
- *Multi-modal (accommodates all modes)*
- *Geometric flexibility*
- *More attractive*
- *Slows traffic speeds*

Cons:

- *Single-lane roundabout footprint larger than traditional intersection*
- *Higher construction costs*
- *Driver unfamiliarity*
- *Difficult crossing for persons with sight disabilities*

Concept for Redevelopment at Wendell and Old Wilson with new street

Option B - Roundabout with Pedestrian Improvements and Landscaping



DOWNTOWN WENDELL

DOWNTOWN WENDELL

It is clear that downtown Wendell holds a special place in the hearts and minds of the Town's citizenry and rightfully so. In fact, half of the 10 guiding principles developed by the citizen-led Wendell Advisory Committee pertain to downtown. The first three on the list refer specifically to downtown, aiming at increasing development and amenities in the town center, while preserving the historic fabric of the area. Citizen input from the charrette confirmed the sentiments of the advisory committee and the importance of downtown. One citizen's comment seemed to reflect the community's overall vision for Wendell's town center: "A vibrant downtown with a turn of the century look."

Citizen/Stakeholder Issues

Charrette participants cited a number of issues that reflect perceptions or realities about downtown that need to be overcome:

- Downtown needs to provide activities and services that will attract people
- Citizens need to support Wendell businesses
- Downtown needs to be accessible

Citizen/Stakeholder Recommendations

Charrette participants were also very realistic and optimistic about the opportunities for downtown Wendell. A synthesis of their recommendations includes:

- **Take advantage of "great opportunities" to develop and redevelop** mixed-use, office, retail, and residential uses, including conversion of old buildings.
- **Provide higher-density residential options** including "upscale condos."
- **Encourage more activities and destinations** such as: restaurants (including those that serve alcohol), nighttime activity, entertainment options (theatre, galleries, live music, festivals).
- **Protect the historic character of downtown**: Town Square, historic homes and streetscapes, Old Post Office, horse stables, large trees, historic churches
- **Use models of development and redevelopment** such as: downtown Selma, downtown Wake Forest, Glenwood South in Raleigh, Cameron Village, Meadowmont, Wilmington, and Newberry, SC.

Development Evaluation: Ripe & Firm Analysis

The historic downtown area serves as the civic and cultural focus of Wendell. At the same time, there many opportunities for redevelopment and new development in downtown. Several tobacco warehouses and factories as well as a mill continue to exist long past their early 20th century hey-day. Likewise, other historical structures such as the 1891 Post Office and buildings that line Main and Third Streets provide opportunities for preservation and reuse within the area. In addition, numerous other sites deserve attention and provide great resources with which to build upon the strengths of the downtown core.

One of the first exercises completed by the design team, the Ripe and Firm Analysis, identified the varying conditions of existing properties within the study area. The Ripe and Firm Analysis identifies sites suitable for development as well as those which future (re)development should preserve.

"Firm" properties represent those parcels generally known to be in their final building/use pattern. These properties reflect the "highest and best use" according to current real estate and appraisal standards. This Plan recommends few changes to such parcels.

In contrast, properties determined to be "ripe" indicate a potential for development/redevelopment strategies. Such parcels currently remain undeveloped, under-developed (additional development opportunities currently exist on the property including expansion of existing buildings and new construction), or show a strong need for redevelopment.

The analysis displayed in the map at right reflects the consensus opinion(s) reached by Plan participants through various survey methods, including windshield/walking tours, and meetings held with property owners as well as community members in order to determine current site conditions and potential future uses.

Ripe - Ripe for Development/ Redevelopment

Downtown - Ripe & Firm Map

Firm - Little or no intervention necessary

Conceptual Plan for Downtown Redevelopment

The plans shown in this section are intended to be conceptual build-out visions for downtown Wendell. Care was taken to envision development alternatives based on property boundaries or known opportunities for parcel consolidation as well as the market feasibility for the scale, amount, and type of development. While the resultant illustrations shown on the Conceptual Plan and in detail on the pages that follow are preferred build-out alternatives created with public input and review during the charrette process, the plan is not intended to preclude site-specific modifications.

It is assumed that any modifications will be the result of specific programmatic and market analysis. However, the following elements should be retained:

- General intensity of development
- Urban pattern (i.e., relationship to street and adjacent properties)
- Massing
- Street and pedestrian circulation patterns
- Provision of public open space

Therefore, the purpose of this Conceptual Plan is not necessarily to require strict conformance to each building or parcel as drawn, but to show general patterns and intensities and potential development/redevelopment opportunities. Development and redevelopment proposals are expected to maintain the general street network, preserve street connections and rights-of-way, protect open space areas, provide usable public spaces, and mix uses both horizontally and vertically, where appropriate.

The conceptual development plans laid out in this section and in the document generally were created with the assumption that their implementation would be accomplished primarily through private investment, with willing buyers and willing sellers and not through eminent domain. Although there will certainly be a role for government investment in infrastructure improvements and public facilities and developing new regulatory standards, the primary mechanism for accomplishing the *physical* vision for downtown redevelopment will be through the initiatives of private property owners, developers, and business owners.

The details of the Conceptual Plan for downtown are laid out in the pages that follow.

Development Details for Downtown Conceptual Plan		
Library	2 stories	20,000 sq ft
Town Hall	2 stories	18,500 sq ft
Mixed Use Buildings	1-2 stories	151,000 sq ft
Residential-scale office buildings	1-2 stories	38,500 sq ft
Residential Units		(147 units total)
Single family houses	1-2 stories	7 units
Townhomes	2 stories	61 units
Apartments	2 stories	33 units
Loft units	2nd story	46 units
Parks/Open Space		7.9 acres

Development Recommendations for Downtown

Change the Codes to Allow Urban, Mixed-Use Development

The current Zoning Ordinance, while progressive in many respects with regards to downtown development, would not currently allow the type of development that is envisioned in this plan. The following changes should be considered as a first step:

- Allow residential development, including townhomes, by-right but with design standards, in the Downtown Development Overlay District (DDOD). Currently, single family uses are allowed by right in some districts around downtown and multifamily is only allowed by approval of Town Board. Some districts in the overlay area do not allow residential at all.
- The Commercial Downtown (CD) district has very urban development standards, but the standards in the remainder of the DDOD area should be made more urban with reduced setbacks, lot widths and design standards.
- More specific and detailed design and development standards should be developed for the downtown area. The DDOD has very good language in the intent section and even includes language related to the architectural style of buildings, but the standards are vague at best and are left to the discretion of the Town Board. Greater density should be allowed in the downtown area, but development should be held to the highest design standards and very detailed design regulations for buildings, site design, and streetscapes should be developed and applied in this area.

Infill and Redevelop North Main Street

Plan participants indicated a desire to create a distinctive entrance to the historic downtown. To this end, this Plan recommends infill development and redevelopment along the North Main corridor.

The clustering of business activities and services in downtown already generates some traffic during the day and the wide sidewalks allow for easy passage by multiple persons. The downtown area is considered to be safe and family-friendly. The challenge of the downtown, however, is that most people drive by it instead of driving through it. Wendell Boulevard effectively performs as a bypass around the historic core. This dramatically reduces the number of car trips in front of each shopfront and limits their effective market. The most notable businesses—Kannon's Clothing, Universal Chevrolet, and the Mortex outlet, among others—are destinations that draw people into the downtown from around the region, but most other businesses rely upon more local traffic for their sales.

This condition is further aggravated by the fact that there are some key institutions (school and churches) and neighborhoods on the north side of Wendell Boulevard that generate traffic on a daily basis. This is a missed opportunity to drive potential customers to the shops and restaurants in the historic core.

The first step in correcting this unfortunate geographic condition is to visually connect the downtown core to Wendell Boulevard. There is currently a visual disconnect between Wendell Boulevard and the historic core where the automobile dealership is located. The first impression of the downtown is one of parked cars and wide, windswept street. It is not an inviting place for pedestrians and does little to encourage the automobile driver to turn off Wendell Boulevard. There are two key strategies that can correct this situation—new building infill and streetscape design.

New trees, hanging baskets, and banners alone will not improve this situation. Studies of human behavior have repeatedly shown that people do not like to walk along "dead" spaces like vacant lots, empty stores, and parking lots. Long, windowless blocks or gaps make areas seem unsafe for pedestrians and hence prove unable to support a lively business or retail environment. When given the choice, most people will actually turn around rather than continue to walk in front of these "negative" elements. This is precisely the reason why shopping malls are quick to fill a vacant store's windows with merchandise—it provides the typical pedestrian/consumer/potential customer with a journey that is continually interesting.

Specifically, the blocks between Fourth Street and Wendell Boulevard should be filled in with new buildings in order to provide an urban form consistent with the classic downtown blocks south of the railroad tracks. The plans on the following pages and the text and illustrations that follow detail some of the key opportunities on North Main.

Downtown Conceptual Plan

New Library & Wendell Historical Society

Mixed-Use Offices, Commercial, & Residential

Multifamily Residential and Neighborhood Green

New Townhomes

Mixed-Use Urban Infill

Farmer's Market Site

Improved Town Square

New Town Hall & Courtroom with Public Plaza

Town Administrative Offices & Mixed-Use Infill

Single-Family Residential Preservation & Expansion

Restaurant with Outdoor Seating

New Townhomes

Preserved Open Space (Community Parks)

Downtown Park & Sprayground

North Main Street Redevelopment Concepts - Enlarged Plan View

North Main Street at Fourth Street Redevelopment

Currently, two of the corners at Main and Fourth streets operate as car lots owned by Universal Chevrolet. These corners represent prime redevelopment opportunities that could ultimately enhance the downtown environment by creating two active blocks linking Wendell Boulevard and the existing Main Street core.

First, the historic gas station building at the northeast corner of Main and Fourth already boasts a large canopy creating an attractive outdoor, sheltered space. The design concept below shows the building converted into a restaurant with outdoor seating under the canopy and along the street.

The concept plan further suggests a new mixed-use building on the northwest corner (shown at left in the rendering below). The space is currently used as a car lot, so the property owner could develop a new building on the site without removing an existing building. The concept illustration shows a building designed in the historic pattern of downtown: multi-story, with entrances close to the street and parking behind. The ground floor shows large windows for retail space.

A two-story Chevrolet dealership in Huntersville, NC

In the near term, the space could serve as a showroom for the Chevrolet dealership with office space above. This configuration allows for the Chevrolet dealership to either use the building space entirely or to even lease certain spaces for other uses, such as local retail shops or specialty stores. Regardless of the uses in the near term, the building itself would help to physically and visually tie the Main Street core south of Depot Street to the North Main Street area.

Existing Conditions at Main Street and Fourth Street looking north

Main Street at Fourth Street Looking North

Just north of the proposed new building at Fourth and Main, the block affords space to develop another building. A multi-story, mixed-use building would provide the opportunity for the Universal Chevrolet dealership to subdivide the space inside, perhaps making the street-fronting portion available to retail use and the upper floors to offices. Adjacent to this structure, the single-family home now operating as a retail shop and the Wendell United Methodist Church represent stable, appropriate uses for the downtown.

Across the street, the plan suggests redevelopment of the existing building parcels. Currently, the buildings along this stretch of North Main contain many gaps between structures. Such breaks in the urban form create sections of "dead space" mentioned previously. This Plan recommends filling in these spaces with two to three story buildings for housing, offices, retail and/or civic uses. The opportunity to relocate some Town services into structures that are more visible to Wendell Boulevard would also help to lend some character to that corridor.

Encourage Mixed-Use Infill Development

Mixed-use development offers an alternative use of existing buildings and potential for new developments within the downtown area. The historic core possesses the greatest stock of existing buildings to fit this use. In mixed-use buildings, various retail and businesses typically occupy the lower floors of building space, leaving the upper floors open to residential or office uses. This arrangement effectively creates an "18-hour environment" in which shops and business maintain an additional market after traditional daytime business hours. With residents coming and going into the evening, the nighttime activity generates a safer, more active environment to the benefit of all users—residents, pedestrians, merchants—alike.

New mixed-use buildings in Fort Mill, SC

Mixed-Use development may take many forms and downtown certainly affords other avenues of such development. In addition to the sites mentioned on North Main Street, other possible sites include the old tobacco warehouses on Hollybrook and Third, the large building located at Second and Pine Streets, and other suitable sites currently in use, such as various factories still in operation. These buildings represent great opportunities for conversion to residential lofts, whether through renovations or new infill development. Though less vertical than other mixed-use types, developers may subdivide the building into different uses. For instance, offices or a restaurant may occupy one part of the building while lofts occupy a separate, distinct area. Ultimately, the blending of uses achieves the same effect, creating a multi-use, extended-hours environment.

In addition, development opportunities for new mixed-use buildings exist downtown. Chief among these, this Plan strongly encourages the infill of the Third-Cypress-Campen block with multi-story buildings serving a variety of uses. These buildings should preserve the urban form in height, density, and proximity to the street. Furthermore, this Plan recommends that the buildings wrap around Cypress Street and down both Campen and Third Streets toward Main Street. This concept provides not only more space for development (and thus generates more tax revenue) but also connects different blocks downtown, giving more continuity to the urban landscape.

Finally, the corner of Fourth and Cypress presents another prime spot for mixed-use infill. Presently situated on the back edge of the Chevrolet dealership, this site offers the chance to extend the urban fabric through a street-fronting out-parcel development along Fourth Street. A multi-story development at this location would bridge the gap between the proposed townhomes on Fourth, west of Cypress, and the new corner building at Main and Fourth Streets. Architecturally, the buildings should maintain the afore-mentioned height and density standards, thus allowing for a mix of commercial and residential functions.

Promote Urban Residential Opportunities in the Downtown

If density is to be provided anywhere in Wendell it should be in the downtown where it is pedestrian-friendly and easily accessible to schools, shops, workplaces, and churches. To this end, the Plan encourages the infill of a variety of blocks through the downtown area with new housing.

Residential infill within the downtown area presents a great opportunity to bring quality, concentrated development to Wendell. This concept originated in meetings with the Advisory Committee, who strongly encouraged the design team to consider residential options in the downtown core. Indeed, this suggestion appropriately reflects community sentiment, illustrating articles two, three, and six of the Advisory Committee's guiding principles targeted at housing diversity and residential infill downtown. Likewise, 53% of community survey respondents favored a variety of multi-family

Source: Michael Rankin

Townhouses next to mixed-use buildings

housing options ranging from two and three story townhomes to luxury apartments, condominiums, and live/work units. This sentiment was echoed by participants in the charrette who desired downtown living options.

The downtown boasts several great opportunities for varying residential infill types. Townhomes represent one way in which the town may begin to reinvest in the downtown core. In keeping with the downtown area's urban form, this Plan recommends that the town homes contain varying heights and densities. Closer to the historic core, heights reaching three to four stories fit the context. Further out, two story units provide a gradual transition to the surrounding residential neighborhoods.

Within downtown, Fourth Street affords the most opportunities for concentrated, higher-density developments. In particular, East Fourth Street stretching from the Hollybrook area across Oakwood and over to Pine Street represents the best area for new residential development to occur. Currently, Fourth Street from Hollybrook to Pine contains only a few buildings surrounded mostly by empty, under-utilized lots. New townhomes along this section could bridge the existing gaps between the historic core and surrounding neighborhoods while providing a pleasant and logical transition. Oakwood from Fourth to Main Street presently contains single-family homes and this Plan supports this street's preservation as such.

On Fourth Street west of Main, the Cypress-Magnolia block also offers several infill opportunities. Allowing for re-development on the aging Trans Mini-Mart site as well as the under-utilized "car-lot" across the street further opens the area to quality residential infill. Once again, multi-story town homes or condos effectively establish the downtown urban form and provide easy pedestrian access between downtown and adjacent neighborhoods. Additionally,

the Magnolia-Cook street block situated at Fourth Street's west end provides another great infill possibility. Presently the site contains two degenerated storehouses, a modular office building, and a few modest single-family homes. The site's current owners have already considered redevelopment of this block for mixed-use development.

Conceptually, the block contains outstanding potential as an urban neighborhood, perhaps home to higher-density urban housing. By pulling the buildings close to the street, the concept of an urban block with parking located in the site's center begins to take shape. This configuration creates a strong street presence along Buffalo, Cook, and Magnolia that announces the downtown's urban form while preserving and enhancing the residential feel of the block. Within the block this Plan suggests the placement of a common green space to be enjoyed by neighborhood residents. This move complements the idea of placing the apartment community building at the end of Fourth and Magnolia streets, a measure that effectively "book-ends" Fourth Street with a neighborhood center and anchors the district visually from two vantage points. Inserting these two community-focused features into the block generates a more public sense of place with which both residents and visitors may identify.

Taken together, proposed infill development will positively shape the downtown environment, significantly adding population to support downtown retail and businesses. This "built-in-market" for the local economy enables the town to realize its goal of creating a vibrant downtown area with a variety of experiences. The increased housing stock, in particular along the Fourth Street corridor, accomplishes many things, including:

- Ownership & investment in the downtown core
- Increased density throughout the downtown area
- A blend of uses and functions downtown that serve multiple segments of the population during varying hours.
- Pedestrian accessibility (All recommended development occurs within a 5-minute walking distance of the downtown core.)
- Diversified housing options
- Increased tax base
- Support for businesses downtown
- Preservation of surrounding neighborhoods. Better transitions to existing neighborhoods.
- Increased safety due to the increased number of people in the area.
- Affordable housing that appeals to persons and families in various life-stages.

Streetscape Improvements

Use Back-in Angle Parking

Though sufficient parking exists downtown, several citizens voiced concern about the difficulty of pull-in angled parking. Complaints centered mainly on the danger of backing into oncoming traffic. To address this valid issue, this Plan recommends re-striping Main Street for "reverse-angle parking." This parking type provides many benefits:

- Parking maneuvers executed the same as parallel parking practices but without the troublesome "straightening." Drivers simply back into the space at an angle.
- When exiting, drivers pulling out enjoy the full view of all approaching traffic, vehicular or other, and have the opportunity to make eye contact with other users during their exit.
- Rear-entry loading pulled right up to the curb.
- Opened car doors direct young children back toward the sidewalk rather than into on-coming traffic.
- If replacing parallel parking, the space-count more than doubles.

Back-in angle parking in downtown Pottstown, PA

Replace the Existing Street "Shrubs" with Canopy Trees

The trees planted along the sidewalk on Main Street do not function well as street trees as they limit the view of historic buildings and fail to provide adequate canopy shade for pedestrians. This is due to the low spreading nature of the species. The existing ornamental, multi-stemmed trees (presumed to be either Chinese Photina or a Holly Variant) are better suited to be understory landscaping—not an urban canopy tree. As a result, the evergreen trees function more like shrubs that screen than canopy trees that shade. In truth, the canopies and awnings provide substantially more shade on the sidewalk than do the trees, as shown by the sketch at right.

Awnings provide more shade than the current trees on Main Street

We recognize that it will be difficult to convince some that they need replacement as they are green and healthy. Yet, the visual obstruction that they currently provide makes it very difficult for a car passing by to see activity along the sidewalk or changes in merchandise in a storefront. This is not beneficial for retail sales. In truth, the buildings in the core of downtown are generally well-maintained and have newer awnings and canopies. The Town of Pineville, NC, recently removed their "street shrubs" following the suggestion of The Lawrence Group during a Downtown Master Plan charrette. The public was amazed at how beautiful the storefronts were behind the trees and remarked that they were much more aware of the retailers and their merchandise than before.

In general, street trees along retail streets should be planted at the ends of the block or between storefronts at mid-block. Care should be taken to avoid obscuring the storefronts with landscaping as this will diminish sales. Suggestions for appropriate trees include the vase-shaped Chinese Elm or Laurel Oak.

Plant Street Trees and Improve the Streetscape on Secondary Streets

In order to encourage more pedestrian use throughout the downtown, a systematic streetscape program should be established. This program should create a phased implementation of a downtown-wide program that allows these infrastructure improvements to be made as funding allows. On secondary streets that are comprised of primarily office, residential, or industrial uses, the tree canopy should be more evenly spaced along the block and can include trees that provide a more spread-canopy such as the Maple or the Ginkgo. Perhaps, the existing "street shrubs" on Main Street can be relocated to these side streets.

Civic Infrastructure

New Library and Historical Society Building

A very viable site for civic redevelopment lies at the end of North Main Street, where a hair salon building now sits. This Plan advocates that the Town work with the County library system to acquire this property and reserve it as the future Wendell Library site. Book-ending Main Street, a new library would provide a critical gateway feature for the downtown area as well as function an anchor and destination. It also would serve to establish the urban form and framework of the downtown core through its parking-in-rear, street-fronting design. Oriented toward Wendell Boulevard, the multi-story building would terminate the view down north Main Street and give citizens and passersby a sense of place. Inexpensive "pavement treatments" that stain and stamp the asphalt to give the appearance of a brick intersection would also contribute to the place-making significance of this intersection. Lastly, the building could house the Wendell Historical Society in a joint-use venture, a move that would add to the property's civic vitality.

In combination with the Town Hall, these community-oriented institutions emphasize Wendell's deeply-valued civic life. Their particular locations in the town center reflect an era when all civic structures occupied the most prominent places in a community. Moreover, these design proposals embody the public sentiment and affection for downtown set forth in this plan's general principles. Specifically, the development concept plan honors the desires to both preserve and enhance the downtown core while strategically locating public services. With these goals realized, the downtown will be well-positioned to continue as the area's historical and civic focal point.

Lastly, this location is further merited by its proximity to the school. Located on the same side of the street a short walk away, a school and library are frequently found near one another. This Plan acknowledges that there are additional costs associated with the acquisition of property, but the merits of the site as discussed above make it a perfect location.

Existing conditions at proposed library site

New Public Library and Wendell Historical Society

New Town Hall in Cornelius, NC

Civic Infrastructure: Develop New Town Hall

The current Town Hall is not a suitable building for a Town that could potentially double its population in the next 10 years. Additional town staff and government services will be needed to serve this growth. The current building may be continued to be used by certain "non-public" services such as the Police Department. The need for larger meeting space, conference rooms, and offices will become necessary in the very near future.

This Plan encourages the consideration of relocating certain Town Hall functions to the corner of North Main and Wendell Boulevard. This would create a gateway entrance to the downtown with an important civic structure to match the presence of the existing Methodist Church. Like the "four corners of law" at the intersection of Meeting Street and Broad Street in downtown Charleston, SC, public buildings have historically served as visual landmarks in prominent locations.

This corner lot offers ample space in which to develop a small public plaza in front of the Hall, possibly home to a public art display. Architecturally, the building may support a small tower that signifies the civic prominence of the building. Combined with the proposed infill buildings next door, these facilities provide continuity in function (Town Hall, courtroom, and support offices) and distinction as persons enter the downtown. The adjacent structures may even share parking spaces in-between and behind the properties.

Public Space

The inclusion of vibrant, public space in the downtown remains high on Wendell's agenda. Public space provides areas where people may gather for anything from personal recreation to civic and cultural events.

Preserve and Develop Downtown Parks and Plazas

The downtown presents a few choice opportunities to preserve open space and develop parks in the downtown area. The largest prospect for such action lies along Fourth Street. From Hollybrook to Selma, one piece of undeveloped property stretches almost one half of the entire block. While this land offers several different development potentials, the site may also be appropriately preserved as a passive open space or urban park. The site contains a small stream, several mature trees, and a significant buffer along the railroad—all worth preserving. If acquired by the town, the space represents an opportunity to create a neighborhood park for downtown residents, especially those across the street on Fourth (new townhomes) and surrounding streets.

Land between Third and Fourth Streets on Pine with potential as public open space.

Likewise, the majority of land fronting Pine Street between Third and Fourth Streets provides another chance to preserve natural features within the downtown limits. This particular parcel also contains a small stream and a considerable buffer with mature trees in the stand. While smaller than the aforementioned parcel, this portion of land might serve as a smaller "pocket park" closer to the downtown core. Again, minor landscaping and accessibility improvements (sidewalks on the perimeter, crushed gravel trails within) create a pleasant environment without much maintenance required. In this case, a few design features prove essential: Benches for workers at the two factories adjacent to the property; a path over the stream for these persons; and appropriate environmental buffers between roadways and the parking lot surrounding the parcel.

Civic buildings proposed in this Plan represent great opportunities to create vibrant public spaces as well. The proposed library and town hall provide two key sites for public space development. The concept plan includes small public plazas located in front of each building. For the town hall, the direct front of the building affords the best place for this design. In fact, the open plaza helps to create a grand entrance to the facility. Lined with benches and trees, such a plaza would provide a place for small gatherings and passive recreation. Across the street, the library offers another venue for public space design. Located off-center to the front, a small patio tucked into the building's side would create an open reading and public area for persons to enjoy. A small fence and outdoor seating would help to define the space while leaving the area both open to and accessible from the outside. Though these spaces clearly identify with specific buildings, each remains available for use by the public.

Finally, the rail line bisecting downtown provides an opportunity to preserve land through the railroad right-of-way. Turning a seeming drawback into a community benefit, this exclusively controlled property represents the longest stretch of consolidated land within the downtown area. As such, the Plan recommends the preservation and enhancement of the corridor as a "linear park" or green space with low-level maintenance. Specific features such as clearly defined landscaped areas accompanied by benches and a paved trail for recreation offer practical, cost-effective improvements to augment the limited amount of public space in downtown. These proposals must be negotiated with the railroad company in order to determine the appropriate location, whether within or outside of the official right-of-way.

Public Space: Town Square and Farmer's Market

This Plan identifies several key sites in the downtown area that offer great potential as formal or informal public spaces. Chief among these, the J. Ashley Wall Town Square presents an exciting chance to improve upon an existing facility. Along with the small town green across Cypress Street, the square comprises a large portion of a Third Street city block immediately adjacent to the historic downtown. At present, an oversized parking lot occupies much of the square. Cypress is an overly wide and under-utilized street, so this Plan recommends removing the parking lot from the square itself and re-striping the roadway so as to accommodate both angled parking (southbound) and parallel parking (northbound). This measure would free up considerable green space for various activities while maintaining a comparable number of parking spaces. As a result, the site affords a variety of opportunities for public use.

The conceptual plan suggests the placement of an open-air pavilion on the parking lot location that would serve a broad range of functions for the square and town. On non-event days, the picnic tables and seating would be available under cover for public use. For other occasions, the area may be used as a festival center or performance venue depending on the event.

This Plan also encourages the Town to look into the site for potential use as a farmer's market. Several citizens suggested this idea, proposing that Wendell form partnerships with area farms such as Blue Sky to serve as anchors for a local market. The concept envisions the area filled with local merchants, families, and activities throughout the square and recommends even temporarily closing Cypress Street between Second and Third in order to open the area to vendors and pedestrians. To further distinguish the road, various street treatments enable inexpensive designs that successfully create a unique feel. From imprinted and stained crosswalks resembling brick to seasonally decorative symbols, such features help to define the area and set it apart as a special, public place. Located immediately next to the historic core, the successful redevelopment of this site will bring many local and outside visitors to the area, generating considerable vehicular and pedestrian traffic downtown.

Existing conditions along Cypress Street at the Town Square

The Village Green with Pavilion along Cypress St at Second St

Public Space: Depot Plaza

Another critical opportunity for public space exists on Main Street next to the rail line. Since the block lies in the heart of downtown, the property along Depot Street from Main to Pine represents a potential central focus for the community. With this in mind, this Plan encourages the acquisition and redevelopment of this block as a city park. This vision fits with the overall downtown development scheme and provides a suitable transition between the emerging civic block and historic core. Because the park will serve as an anchor for downtown, the space needs to contain a central attraction for all.

The concept plan at right suggests a "spray-ground" fountain as an element that would achieve this purpose. These water features provide a safe, interactive experience for children and families. In these fountains, water shoots out of the ground through various openings and drains into a central, well-covered grate. Since the fountain area slopes gently toward the drain the water level never exceeds a few centimeters, making it a safe environment for children of all ages. This Plan recommends that the Town situate this feature in the park's center, surrounding the fountain with open space, and lining the block with tall trees able to offer sufficient shade on hot summer days.

Additionally, benches and walkways leading to and from the fountain keep the area well-connected within the town center and give parents and others a place to come, rest, and watch the children play. Lastly, the property affords space to locate a small pavilion on site, perhaps near the entranceway from Main Street. Much smaller than the proposed farmer's market pavilion, this structure could have seating (benches) around its outer edge and serve as a small focal point for festivals and other events. The concept plan suggests a staining or paver treatment on the Main Street pavement that leads up the sidewalk and into the pavilion area to visually denote the park's presence on the corridor.

Interactive water fountain

Pergola with Swinging Bench

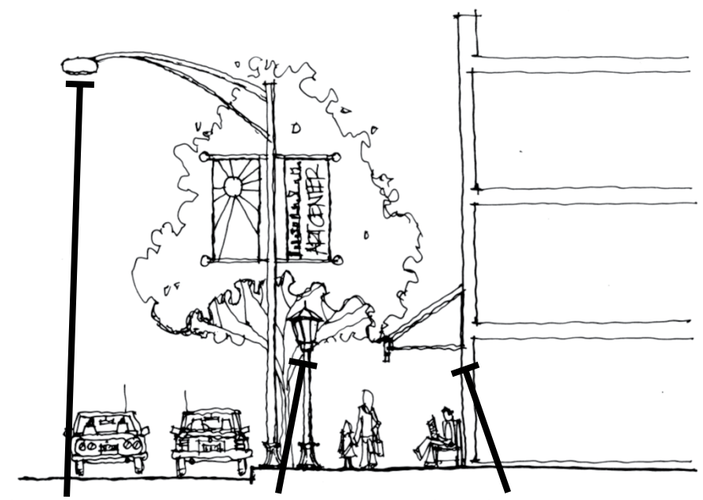
Depot Plaza

General Urban Design and Retailing Principles

The following general principles are representative of best practices for downtown development, redevelopment, and retailing. These principles are incorporated in nearly all successful downtowns and shopping environments.

Nighttime Lighting

There are three basic zones of lighting a downtown - street lighting, pedestrian lighting, and storefront lighting. The first two are generally effective but due to spacing and obstructions such as street trees and signage can have long shadows and dark areas. The most effective way to supplement these areas is with indirect lighting cast from shopfront windows. Simple lighting of display windows can provide a measure of security to pedestrians by ensuring an even allocation of light on the sidewalk area.



In the Main Street area, Wendell has very attractive, relatively new pedestrian lightposts. As a long term strategy, Wendell is encouraged to provide similarly scaled pedestrian lighting in the greater downtown area to promote the perception of safety and walkability. Such lighting can be required of new development for streetscapes in the downtown area.

As a short-term strategy, the Town should provide continued maintenance of the poles by ensuring that all poles are continuously functioning.

One of the best ways to promote nighttime activity in the downtown is to encourage downtown business owners to leave their display window lights on at night, at least until a certain hour. The light cast from storefront windows not only provides for an enhanced sense of security but it also serves as an effective marketing tool by enabling merchandise to be better displayed and gives the sense of activity and excitement.

Display Windows

In this same vein, storefronts should be attractively arranged and regularly changed. Mall stores are often required to change out their display windows at least every week so that regular shoppers will get the impression that their is a new selection of merchandise for sale. Of course, this is also a function of how often the average shopper returns to a store. If the average customer comes into the store every two weeks, then the display should be changed that often.

As part of the encouragement to rotate displays, a downtown organization should consider a quarterly award to the best window display. This award should carry with it a cash incentive to be used on storefront improvements as a further incentive for facade reinvestment. Awards should be given for the best individual window display, the best overall displays over a period (quarterly or annually) as well entering all merchants who rotate their window displays at least once per month during the year into a raffle for a third incentive prize.

Take lessons from national retailers in properly merchandising store fronts

15 RETAIL TIPS TO ATTRACT NEW SHOPPERS

1. Wash your windows at least once a week; wash your front door daily because it is so visible.
2. Polish your brass door handle or scrub your aluminum knob weekly. First impressions matter.
3. Scrape off old stickers from windows-Visa, MasterCard, etc. It is assumed that you take plastic in today's retail environment.
4. If you don't take plastic, begin immediately. It is a proven fact that shoppers using plastic have larger average sales that those using cash.
5. Remove old posters and window clutter so shoppers can see into your store. Look inviting to curious eyes.
6. Post your hours on the door so shoppers know when to come back and make a purchase.
7. Change your window displays frequently. The Gap changes its windows once a week.
8. Replace burned-out light bulbs so your store looks maintained and well lit.
9. Increase the wattage of light bulbs throughout your store. Have you shopped in Benetton lately?
10. Leave your display window lights on at night to highlight your merchandise 24 hours a day. Your windows are free advertising!
11. Remove bars on your windows to show shoppers that the neighborhood is safe. Don't feel comfortable doing that yet? Move the bars inside to the back of the display window.
12. Replace your yellowed Plexiglas windows with clear glass. All the cleaning in the world won't make a difference if your windows look dingy.
13. Ask your customers what they like about the appearance of your business and what they would like to see change. Then, implement the suggestions.
14. Go on vacation. When you come back, you will have a fresh perspective. Walk through your store with a pad in hand and jot down anything "you never noticed before" that should be repaired, cleaned, upgraded, or replaced.
15. Hire a part-time employee and ask what he or she would change. Or, assign your new employee to make the upgrades!

Retail Tips compiled by William McLeod, Executive Director of Barracks Row Main Street at bmcleod@barracksrow.org or 202-544-3188. Adapted from article in Main Street News, October 2003.

Interior Merchandising

As part of the facade improvements, retailers in particular should also consider the merchandising of the front of the store's interior. While high shelving packed with goods may appear that a store has a wide selection they need to be properly arranged according to basic shopping tendencies.

As a general rule the highest margin items, the goods that retailers make the most money from, should be placed in the front of the store. Low margin, routine items such as milk, dog food, and bread should be placed in the back of the store so that patrons will have to walk past other products that they might "want" before purchasing the item that they "need." A downtown business group would be an appropriate organization to work with retailers to encourage such practices.

Storefront Signage

In an eclectic district like a downtown where pedestrian activity is expected to be heavy, it is inappropriate to encourage suburban-style signage standards for storefronts. Specifically, merchants should consider the use of projecting signs and three-dimensional signs as a way to not only advertise the store but also to add ornamentation and detail to storefronts.

Storefront signage must be clean and concise. Signage on the glass should maintain the opacity of the window so as not to obscure viewing into the store. Store hours should be clear and regular. All signs in the windows should be professionally prepared. Avoid hand made signs that look cheap and unattractive as they will give the potential buyer the impression that the contents inside the store are as equally unappealing.

In addition to wall signs and under-canopy signs which should be provided for nearly every storefront, there are a number of buildings that should consider using wall murals for their end walls as they turn down the block. Wall murals were historically used by individual manufacturers such as Coca-Cola to advertise their products. These, of course, were replaced by billboards when the age of the automobile overtook the downtowns. In many communities, these murals have become part of the nostalgia of the area and in fact, are being replicated in new suburban locations such as at the SouthPoint Mall in Durham as a way to break up large blank walls.

Encourage new signage on storefronts

A facade improvement grant program could be examined with incentives that may be distributed. The program should also include signage and should specifically encourage new and interesting signage types.

Public art with a seat in Asheville, NC

Promote Public Art

What differentiates a true urban environment from a shopping center is the level of detail that adorns the public realm. Many communities have incorporated fun and educational artwork into their sidewalks and public spaces.

The Town could consider initiating an "Adopt-A-Square" Program with the local arts community and high schools for the creative placement of civic art within the sidewalks throughout the downtown district. For example, a brass two-dimensional train or other references to Wendell's history and future could be embedded into the concrete of the sidewalk. This type of artwork is not expensive, can easily be expanded and adds interesting features for pedestrians as they walk.

The Town should also encourage the placement of free-standing statuary and other forms of dimensional art work. Specifically, the Town should reserve locations for public art around all public buildings and facilities, such as the proposed Town Hall Plaza. Whimsy is encouraged as a way to enliven spaces and maintain a child-friendly focus.

Establish Downtown Wendell Organization

Finally, the merchants and property owners in the downtown should establish an organization to serve their specific needs. Like a mall or shopping area, it is important that each merchant/property owner think collectively about their future success. This Plan recommends establishing the organization as a volunteer board with dues set at approximately $100 per year with funds to be matched 100% by the Town. The first year budget goal is approximately $8,000 to $10,000.

The activities for the first three years should include the development of a new branding program, cooperative marketing, the creation of any collateral material (such as a brochure or online presence), and other marketing efforts.

In addition, this organization should serve as advocates for the physical changes recommended elsewhere in this Plan include the re-organization of on-street parking, the replacement of the existing "street shrubs", and the extension of the streetscaping program to other streets. Further, this group should also be an advocate for the incorporation of best practices in the downtown in building maintenance and retailing (e.g., best storefront merchandising, best signage, etc) to be awarded on an annual or semi-annual basis.

Over time, as this group formalizes, the funding for this organization can be derived from the establishment of a special taxing district. Known as a Business Improvement District (BID), this frequently used funding tool levies an additional tax rate on property owners within a certain boundary and direct those funds to be used only for activities, programs, and improvement determined by the members within that district. In business terms, this is equivalent to the CAM (common area maintenance) charge levied on tenants in condominiums, shopping centers and office to cover expenses and needs that are common to all of the residents.

Once the group is formalized and the BID is established, the minimum budget should be $150,000 annually with sufficient funding to cover at least one full-time staff person. Most towns the size of Wendell continue to contribute partial funding to the downtown group to help support their efforts. In truth, what is good for downtown Wendell is good for the entire community.

GENERAL RECOMMENDATIONS

Diverse Tax Base

Branding and Marketing

Housing Choices

DIVERSE TAX BASE

Three of the General Principles of this Plan have to do with economic development and the community's goal of diversifying Wendell's tax base. Advisory Committee members and citizens who participated in the planning process all voiced the desire to:

- "Increase downtown and in-town retail [and] dining. . .options; likewise, continue the tradition of local business." This includes opportunities for local entertainment and shopping so that, as one charrette participant put it, "citizens don't have to leave the Town to shop and eat."
- "Diversify and increase the per capita tax base. Provide for a diverse workforce with a broad range of skills, making Wendell a self-sustaining community—a place where people can both live and work." Plan participants want to attract new industry and new jobs to Wendell to create a tax base that is sustaining over time and not overly reliant on residential property taxes.
- "Promote Wendell's attractiveness to businesses and people of all walks of life. Emphasize the strengths of the Town's diverse population." This included suggestions of creating new branding and image for the community to attract investment.

Issues

Plan participants were very clear about what they did not want for Wendell and the issues that the Town is facing in terms of economic development. Citizens want the Town to ensure the attractiveness of Wendell Boulevard by avoiding the look of Knightdale's commercial strip or Capital Boulevard and avoiding the proliferation of fast food restaurants and big box retail. Plan participants also acknowledged limited road access as a weakness of the Town in terms of attracting new commercial development, however this has been mitigated somewhat by the opening of the US 64 bypass. Others expressed concern that the proposed Wendell Falls development may negatively impact the existing commercial base of the Town, especially in downtown.

Opportunities/Advantages

Plan stakeholders were cognizant of the many beneficial changes that have happened or are on the horizon for the Town in terms of enhancing economic development. These include:

- New sewer line along Buffalo Creek that will open up new development opportunities the US 64/ Wendell Boulevard interchange;
- Wendell's reputation as the safest community in Wake County;
- Potential new regional airport west of the US 64 interchange that will support small private jets favored by certain business operators
- New residential developments on the horizon just over the border in Johnston County, among others.

WHAT IS ECONOMIC DEVELOPMENT?

Broadly speaking, economic development is about an increase in overall economic well being. It is typical to use income as a benchmark, but that has several limitations. Strategically, it means business development, job opportunity and job growth—the keystones to economic base analysis [which holds that job growth in a town or region is the basis for community growth]. The key objective comes from the creation of new firms; expansion of existing firms; and the relocation or retention of existing firms. The primary question for public policy is: What are the factors that influence business and job growth and what is their relative importance?

What Factors Matter?

Why do firms locate where they do? The primary determinants are a company's factors of production. Those categories that describe and influence a firm's production functions include:

- Labor: type, cost and quality
- Land: location, zoning and cost
- Local Infrastructure: utilities, communications and roads
- Access to Markets: transportation networks
- Materials: supply, cost and accessibility
- Entrepreneurship: business friendly environment

These categories depend on market factors, including supply and demand.

Production factors also rely on public policy, which can affect them through:

- Regulation: streamlined and efficient bureaucracy
- Taxes: fair and competitive
- Financial Incentives: state, regional and local

Additionally, indirect factors may include such things as:

- Industry Clusters: agglomeration of economies: industries or labor
- Quality of Life: area amenities
- Innovation: education, innovation and creativity

Economic development efforts in Wendell should outline and assess each of these areas, and highlight the Town's competitive strengths, as well as focus on its weaknesses in each of these categories. Consideration should be given to what to focus resources on, and what resources to leverage at the regional or state level. Some areas may include business retention versus business recruitment; and creation/inventory of product (land/buildings) for economic development officials to market. Wendell can position itself to provide a competitive business location alternative for the region.

Source: Rose & Associates, Inc.

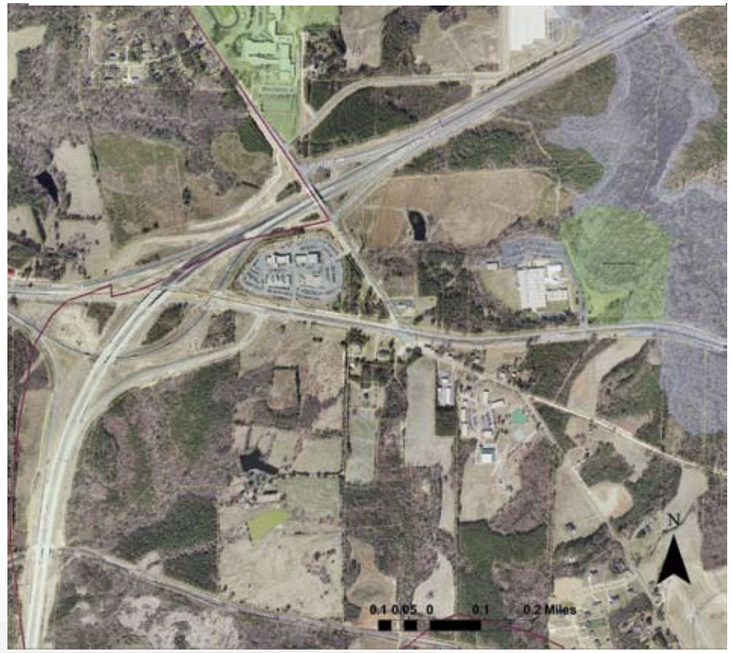
Wendell Boulevard Business Campus

One of Wendell's most promising economic development strategies in the near term is to focus on promoting office and industrial development at the node around the US 64/Wendell Boulevard interchange. Current population thresholds in the Town are not adequate to attract new large scale retail development. Furthermore, large new retail developments are currently proposed in Zebulon and Knightdale for Target and Super Wal-Mart that will make locating similar stores in Wendell unlikely in the near future. According to Town officials, experienced retail developers who have looked at property in this location have not been optimistic about the prospect for large-scale retail development there.

The concept plan shown at right illustrates the potential to develop 15 sites of 10 to 18 acres at the US64/Wendell Boulevard interchange that could be pre-qualified (or "certified") through zoning and other development entitlements for office buildings and/or light industrial, warehouse, or "flex" space in a business park or campus setting. The location is one of the most accessible in the Plan area, with highway and potential railway access. There are more than 200 acres of available land there currently. The building sites would be appropriate for one to four story office buildings with floor plates of 10,000 to 20,000 square feet (ground floor square footage) or industrial/flex buildings of up to 200,000 square feet, as recommended in the market study. The acreage and building scale is similar to the existing Vishay Measurements Group plant.

These sites would be appropriate for medical office uses, hospital uses, or any number and combination of industrial or office uses with attendant service-oriented retail establishments. The building sites could be marketed individually or collectively with a common branding theme with sites ready for owner-occupied construction or build-to-suit development. Ideally, these sites would be marketed by the Research Triangle Partnership, the regional economic development agency.

Existing Conditions at US64 Bypass and Wendell Boulevard



Conceptual Plan: Wendell Blvd Business Campus

Conceptual Development Details
15 Potential Qualified Sites (10-18 acres each)
Rolesville Road and Eagle Rock Road Realignments

Other Economic Development Recommendations

Detailed location- and sector-specific recommendations for office and industrial development are included in the Market Study section. These include:

Office (Medical, Professional)

- Gateway & Town Center Node(s): Office buildings from 1-4 stories; floor plates/footprints from 10,000–20,000 square feet, clustered around a primary intersection/block.
- Neighborhood Node(s): Residential scale office buildings from 1-2 stories; floor plates/footprints from 1,500–5,000 square feet situated in a village environment, clustered around service/convenience-oriented retail at a primary intersection.

Industrial (Light Assembly, Warehouse, Service, Flex)

- Gateway Node(s): Given its location and accessibility, moderate scale light industrial, warehouse, service and flex space in a business park or campus configuration with building floor plates/footprints of up to 200,000 square feet may be supported. These types of buildings are characteristically built with approximately 5-10% being an office component with the remaining space open for manufacturing, warehouse, assembly or distribution of a variety of goods.
- Wendell has the potential for positioning and branding an affordable, yet high-tech/"cutting edge" business park/campus, through entrance improvements and a marketing strategy.

Other broad economic development strategies include:

- Create a town marketing package, including a logo and brand identity and marketing website to highlight the strengths of the Town for potential investors.
- Develop an incentive policy for new or expanding businesses as the Town of Zebulon has done.
- Inventory and market the available commercial buildings and land.
- Initiate a qualified sites (also known as "certified sites;" see description at right) program for sites that meet the criteria of the Research Triangle Regional Partnership (RTRP) and the NC Department of Commerce. As noted in the market analysis, the RTRP which markets available sites in the Triangle region among other things, has indicated to Town officials that there is a need for available sites in eastern Wake County.
- Convene discussions with regional Chamber of Commerce and Economic Development representatives regarding marketing and enhancing economic development opportunities in Wendell.

QUALIFIED SITES: The NC Dept. of Commerce "Certified Sites" (CS) Program

The North Carolina Department of Commerce has established a "Certified Sites" program, which is designed to provide an inventory of available and appropriate sites for business/industry location throughout the state. The objectives of the program are to:

1. To establish a statewide inventory of Certified Sites.
2. To encourage local economic development organizations to control and comprehensively analyze sites prior to client visitation.
3. To promote and market "Client-Ready Sites" on ncsitesearch.com
4. To improve North Carolina's competitive edge by offering "full service," "fully tested" sites.

Site Requirements

MINIMUM SITE AREA: Ten (10) acres

MINIMUM DEVELOPABLE AREA: Within the designated property, the area which is suitable for developing industrial facilities and all associated improvements (employee parking, truck staging areas, etc.) should accommodate at least a 50,000 sq. ft. building with improvements or approximately 25% of the total site at a minimum is suitable for development.

MINIMAL SITE ACCESS: Each site must be accessible by a roadway which meets the North Carolina Department of Transportation standards for tractor/trailer access.

Proposed sites should be compatible with the community and the natural environment within which the site is located.

ZONING: The zoning district within which the proposed site is located must clearly permit industrial land uses.

WATERSHED CRITICAL AREA: The proposed site is not located within the designated critical area of a public water supply unless the site has been exempted.

SUBJECT TO FLOODING: The proposal should establish the location of the site in relation to known flood areas associated with lakes, rivers, and streams in the immediate vicinity of the site.

Source: NC Dept of Commerce, "Certified Sites (CS) Program," 2001

TOWN BRANDING AND MARKETING

Aside from the public's limited knowledge of the historic downtown core, Wendell lacks a strong regional identity. In order to upgrade the Town's image for prospective employers, developers and residents, the Town must first develop a branding and marketing plan. Much more than a new logo or web site, a branding program is a comprehensive, multi-faceted strategy. This strategy should focus on the community at large and then reach into the downtown area.

There is no coordinated marketing effort and various groups are doing things independent of one another. Most importantly, the current city seal is not acceptable for use as a logo. As a seal, it serves its purpose for official documents, but as a logo it is dated. Successful logo systems incorporate contemporary styling and fresh colors. It is fine to reference historic or cultural elements in the logo scheme, but it should also give a sense of Wendell as moving forward into the future as a progressive community.

The development of a brand and the marketing of that brand are central elements to the sale of any product. In business speak, there is a distinct difference between "branding" and "marketing." In short, a brand is a customer relationship based on a set of core values that is defined by all the experiences, messages, promises and performance/quality associated with it. Marketing on the other hand is the execution of a business process that generates awareness and demand for a product or service.

The development of a brand is a slow, methodical multi-faceted process while marketing is a quick, often singular communication tool. Strong brands enhance the results of marketing programs. Marketing a product without a brand is selling the sizzle without the meat. The development of a branding strategy, therefore, is almost a necessary precursor to a successful marketing program.

In Wendell's case the "product" is the community itself - the downtown, the neighborhoods, the businesses, the churches, the cultural activities, the people, and everything else that defines Wendell.

This Plan therefore recommends the creation of a Branding and Communications Plan consisting of the following:

- Branding Strategy
- Brand Messaging + Logo System
- Marketing Strategy
- Marketing Programs

The brand's identity must be unique and memorable and it should be sufficiently differentiated from it closest competitor. When considering the "Wendell Brand" the Town should consider the brand as both an organization (Town government) and as the entire community. The following elements, as adapted from *Successful Branding: Five Key Elements and One Mantra* (http://www.gotomarketstrategies.com/tip_03_02.htm) should be included:

Brand Position: The Brand Position is the part of the brand that describes what the Town does and for whom, what its unique value is and how someone such as a resident or business benefits from being a part of the community, and what key differentiation this community has from others at both the regional and national level. Once the brand position has been created, it should be made available in 25, 50 and 100 word versions.

Brand Promise: The Brand Promise is the single most important thing that the Town promises to deliver to its customers - EVERY time. To come up with your brand promise, consider what customers, employees, and partners should expect from every interaction with the Town. Every business decision should be weighed against this promise to be sure that a) it fully reflects the promise, or b) at the very least it does not contradict the promise.

Brand Personality: Brand Traits illustrate what the Town wants its brand to be known for. Think about specific personality traits you want prospects, clients, employees, and partners to use to describe the Town. You should have 4-6 traits (5 is ideal), each being a single term (usually an adjective).

Brand Story: The Brand Story illustrates the Town's history, along with how the history adds value and credibility to the brand. It also usually includes a summary of your products or services.

Brand Associations: Brand Associations are the specific physical artifacts that make up the brand. This is your name, logo, colors, taglines, fonts, imagery, etc. Your brand associations must reflect your brand promise, ALL of your brand traits, and support your brand positioning statement.

One Mantra: Once you've developed and defined a relevant brand, you must begin building the brand with employees, customers, prospects, partners, etc. through CONSISTENT execution. Repetition is key to the success of the branding process.

Document the Brand: Finally, to help ensure you build the habit of consistent brand execution Town-wide, we recommend you document your Brand Elements in a Brand Book and provide this guideline to every employee for their own use in their daily activity. Then become your company's brand ambassador and begin the diplomatic process of self-enforcing its use!

Town logos and brands from various southeastern towns and cities

HOUSING CHOICES

The desire for a diverse set of housing choices in Wendell was a theme voiced over and over by residents and stakeholders who participated in the planning process. "Provid[ing] for a range of housing opportunities" is one of the guiding principles for the Plan as determined by the Advisory Committee. "Lack of housing diversity" is one of the major negatives that committee members mentioned about the Town. The committee envisioned a range of housing types from townhouses and condominiums downtown to new "upscale" neighborhoods.

These sentiments were echoed by the general public in the community survey and the charrette. When presented with a list of potential housing types for the study area, the types most frequently selected by survey respondants were: senior living facilities, two story single-family homes, condominiums, one-story single family homes, luxury apartment rentals, two-story townhomes, and affordable apartment homes. The community survey also revealed a desire for a greater range of housing prices in the Plan area, with prices of $150,000 to $300,000 receiving the most votes.

Community Survey Responses: "Types of housing you'd like to see in the study area?"	
23	Senior living facilities
22	Single Family two-story
16	Condominiums (2-3 story)
15	Single Family one-story
14	Luxury apartment homes (rental)
11	Two-story townhomes
8	Affordable apartment homes (rental)
7	Live/work
6	Three-story townhomes
3	Duplex dwellings
2	Quad-type dwellings
1	Triplex dwellings
1	Other—No New Housing Needed

During the charrette, participants further confirmed the direction of the Advisory Committee and the Community Survey. Charrette participants expressed the desire for housing options from "higher density, mixed-uses" including downtown condos and townhomes; to more higher priced traditional housing such as golf course communities and other "upscale neighborhoods;" to single and multi-story townhomes; and senior housing that is not income-restricted. A number of participants also mentioned concerns with the perceived over abundance and lack of maintenance of current rental and starter homes in the Town.

With the fastest growth rate in the Wake County MSA in recent years, Wendell is already seeing housing demand increase. The recent completion of the US-64 Bypass reduces the commuting time from Wendell to Raleigh by half. Hence, the town's location and its average home price (relative to surrounding municipalities) make the area ripe for significant residential development.

The Market Study completed by Rose and Associates supports resident and stakeholder input about housing diversity. The study confirms that Wendell's greatest advantage in the housing market is the ability to create a variety of price-point housing options for persons at varying life-stages. Currently, the starter home rules the Wendell market as the more than 75% of household incomes in the town fall below $75,000. This degree of purchasing power reflects the average home sales price in Wendell, which nets roughly $150,000 per unit. Detached single-family residential homes comprise the vast majority of the housing units sold in Wendell in recent years. However, an oversupply for single-family detached housing in the $150,000 range currently exists. Therefore, future residential development in Wendell must consider offering a mixture of residential pricing, design, size, and density options in order to stay competitive in the overall housing market.

The market study also notes that Wendell needs to target previously under-served segments of the population. Persons such as retirees, students, empty nesters, and the self-employed represent an increasing presence in the housing market. Unlike traditional family-types, these groups desire different residential settings. Preferences for less square footage with higher levels of amenities and finishes and higher densities loosely characterize their varying demands. These groups provide many benefits to a community. Persons or couples without children contribute to the tax base while not exerting the same demands on the school system as a multi-child family. Likewise, increased residential options in the downtown will bolster local businesses and create a more lively downtown environment. Most importantly, the emerging demographic shift towards smaller household sizes, aging population, and fewer traditional family households means that Wendell must diversify its future housing stock in order to capture these potential market and cultural gains.

Recommendations

Use Density-based Requirements in Residential Districts

Wendell's current practice of zoning and subdivision regulates new development on the basis of lot size. There are two problems with this practice. First, it limits creativity in neighborhood design and creates "cookie cutter" subdivisions based on the minimum lot size. Second, it limits the preservation of open space by encouraging developers to plat every possible portion of a site.

A more flexible tool is the application of base density requirements for new development. These can aid in neighborhood design by allowing (but not necessarily requiring) a variety of lot sizes within close proximity while regulating the actual number of units that impact surrounding infrastructure. Such a requirement also helps to protect natural features and open space by allowing flexibility in developing sites that are not flat. Detached single family homes can actually be developed to a density of 12-16 units per acre before a fire-rated wall, such as those used in town homes, is required. To that end, we recommend the use of maximum density instead of minimum lot sizes.

Currently, only Wendell's R-20 residential zoning district uses a maximum density.

Two-story townhomes

Encourage a Greater Range of Housing Types

In addition to being regulated by lot size, zoning in Wendell is also regulated by dwelling type. Only single-family and two-family dwellings are allowed by-right in any of the Town's base zoning districts. Multi-family dwellings are not permitted by-right in any base zoning district and are allowed in certain districts only based on certain conditions and the approval of the Town Board. Townhomes are only specifically permitted in PUD districts. The result is that building residential units other than single family dwellings in Wendell is discouraged because of the added time (for rezoning, special approval, etc), cost (because of the added time,

approval requirements), and the uncertainty of the political approval process.

Furthermore, because of the minimum lot sizes and other suburban-style development standards for multi-family and two-family dwellings, the ability to build such uses on infill lots in the Town's core is severely limited.

New homes of different sizes and types can be mixed in a single development.

The Town can encourage a greater range of housing choices by:

- Using density-base requirements, as suggested above. This would also allow the developers to mix housing types as well as lot sizes to achieve maximum densities.

- Allowing townhouses and multifamily development by-right (but subject to certain design criteria, as suggested below) in certain zoning districts, especially those that are closest to the town center and other centers of commerce, employment, and services. For example, townhomes and multi-family development should be allowed by-right in the Downtown Development Overlay District (DDOD), except perhaps in the R-15 district, and within and adjacent to nodes shown on the Framework Plan map.

- Reducing required minimum lot size, lot width, and setback dimensions to encourage development of townhouse, multi-family, and small lot single family dwellings on infill lots in or near downtown and identified mixed-use nodes. The current standards are overly large and overly suburban in character to allow for contextually-appropriate redevelopment of small sites in the Town's existing built-up area.

Develop Design Standards for Infill Development

The need to create new standards for infill residential development was suggested by more than one participant in the Plan development discussions. The recommendations above suggest allowing greater density in certain areas of the Town. Greater density must be balanced with increased standards for building and site design. Definitive standards for the design of infill development should be enacted to ensure that infill development enhances rather than degrades the existing in-town areas including the historic neighborhoods. These standards should apply to areas that the Town designates as appropriate for the infilling or redevelopment of existing lots.

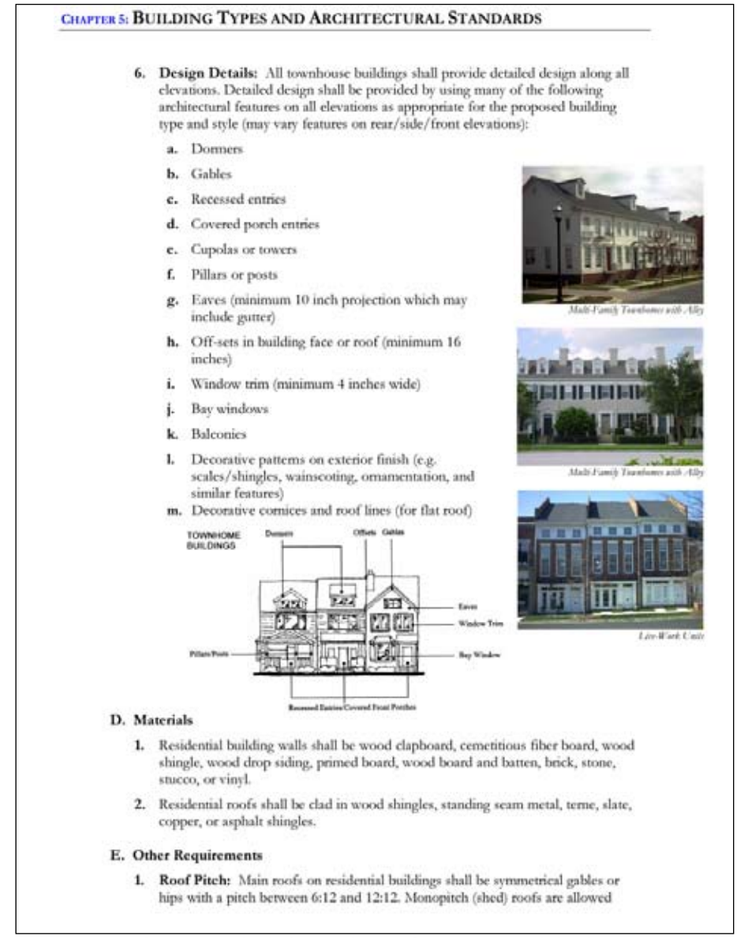
Design Standards for Buildings should address the following basic elements:

- Location on lot (consider maximum setbacks in some districts);
- Street walls;
- Building entrances;
- Roof treatments (pitched roofs and parapet walls);
- Façade treatment (window proportions, architectural treatment, roofline offsets);
- Encroachments (bay windows, balconies, awning, arcades, etc.);
- Buildings materials (e.g., brick, stone, and siding);
- Relationship to neighboring buildings; and,
- Garage door location (relationship to street)

The table below shows the possible application of various design requirements to certain building types & uses in the land development regulations:

Design Standard	Commercial/ Mixed-use	Multi-Family/ Townhouse	Single-Family (Small Lot)
Building Location	√	√	√
Off-Street Parking Location	√	√	√
Right-of-way Landscaping	√	√	√
On-Site Landscaping	√	√	√
Frontage of Garage	n/a	√	√
Encroachments	√	√	√
Front Door Location	√	√	√
Roof Form/Pitch	√	√	√
Percent of Windows/Doors	√	√	
Building Materials	√	√	√
Building Color	√	√	

These design standards should be graphically depicted to help show both intent and application.



CHAPTER 5: BUILDING TYPES AND ARCHITECTURAL STANDARDS

6. **Design Details:** All townhouse buildings shall provide detailed design along all elevations. Detailed design shall be provided by using many of the following architectural features on all elevations as appropriate for the proposed building type and style (may vary features on rear/side/front elevations):
   a. Dormers
   b. Gables
   c. Recessed entries
   d. Covered porch entries
   e. Cupolas or towers
   f. Pillars or posts
   g. Eaves (minimum 10 inch projection which may include gutter)
   h. Off-sets in building face or roof (minimum 16 inches)
   i. Window trim (minimum 4 inches wide)
   j. Bay windows
   k. Balconies
   l. Decorative patterns on exterior finish (e.g. scales/shingles, wainscoting, ornamentation, and similar features)
   m. Decorative cornices and roof lines (for flat roof)

TOWNHOME BUILDINGS

Dormers
Offsets
Gables
Eaves
Window Trim
Bay Window
Pillars/Posts
Recessed Entries/Covered Front Porches

Multi-Family Townhomes with Alley

Multi-Family Townhomes with Alley

Live-Work Units

D. **Materials**
   1. Residential building walls shall be wood clapboard, cemetitious fiber board, wood shingle, wood drop siding, primed board, wood board and batten, brick, stone, stucco, or vinyl.
   2. Residential roofs shall be clad in wood shingles, standing seam metal, terne, slate, copper, or asphalt shingles.

E. **Other Requirements**
   1. **Roof Pitch:** Main roofs on residential buildings shall be symmetrical gables or hips with a pitch between 6:12 and 12:12. Monopitch (shed) roofs are allowed

Design standards for townhomes from a municipal development ordinance

This Plan includes site design studies for two undeveloped parcels on the town's edge. Intended to serve as models for S-4 (Controlled Growth) type development, these plans represent possible build-out scenarios that protect each property's natural and historic resources and at the same time provide a significant amount of development potential. In each concept, a range of housing options are integrated.

Eagle Rock Village (Anderson Property) Neighborhood Plan

At Eagle Rock Road in the Marks Creek area, the design for a 190-acre site centered around a mixed-use neighborhood that preserved an existing farm homestead. During the charrette, the Anderson family requested a development concept for this property that would allow the family's historic homeplace to remain. After identifying the buildings to be preserved and the significant areas of floodplain and forest stands that encircle the site from the east, the consultant team developed a concept plan to best preserve the site's natural features while maximizing the development potential adjacent to existing buildings. The final scheme (shown at right) shows a distinct residential buffer and open space around the homestead and a church. The design concept also sets the proposed new development away from Eagle Rock Road in order to preserve the rural character of the roadway and an existing meadow.

The Plan shows approximately 70,000 square feet of neighborhood commercial space in mixed-use buildings which would include upper story residential or office units. Townhomes (shown in orange) provide a compatible transition for the proposed mixed-use buildings in both density and height. Townhomes transition into small single-family lots (40-50 feet wide), which comprise the bulk of the neighborhood. Larger single-family lots (70 plus feet wide; approximately 1/3 acre) cluster along the creek in the property's southeast corner. The design provides for 377 homes of mixed-size and type, providing opportunities for persons of various life stages the opportunity to live in the same neighborhood within walking distance of civic and commercial uses.

Existing Conditions at Anderson Property and vicinity

Conceptual Neighborhood Plan at Eagle Rock Road (Anderson Property)

Conceptual Development Details

Acres: ~190
Land Uses: 377 mixed residential units; 70,000 sq ft commercial with residential above; formal parks; greenway; church; and school
Residential density: ~ 2 units/acre
Setback from Eagle Rock Rd: 100 ft

Wendell Blvd at Little River Neighborhood Plan

A property along the Little River at the eastern edge of Wendell represents another potential neighborhood of mixed-housing types and land uses. The property comprises nearly 50 acres that is currently zoned for industrial uses. The property is unlikely for industrial development due to the difficulty of truck access and the environmental constraints of the site.

The conceptual design shows the development of small-scale, mixed-use (retail, office, and/or residential) buildings at the property's Wendell Boulevard frontage. Behind these buildings, the residential neighborhood begins with multi-story townhomes transitioning into larger-lot single-family residences along the wooded edge of the property. Two formal neighborhood greens are incorporated into the plan, which provide a useful social space and an attractive setting for fronting residential lots. Like the Eagle Rock Road concept plan, this Plan provides a range of housing choices in a single neighborhood, within walking distance of services and community amenities.

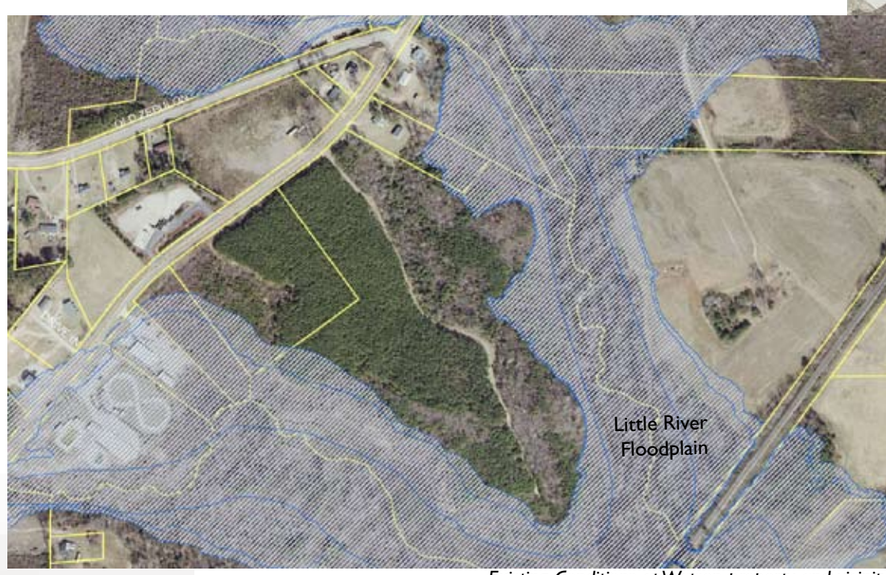
The property is surrounded by the Little River floodplain, which is recommended for greenway development in the Town's *Open Space and Greenway Master Plan*. The concept plan proposes to leave this area undeveloped to allow for a future greenway and to provide a community amenity in the form of a natural greenspace.

Conceptual Neighborhood Plan: Wendell Blvd at Little River (Watson Property)

Mixed-use buildings

Townhomes

Single-family lots



Existing Conditions at Watson property and vicinity

Conceptual Development Details

Acres: 47.42

Land Uses: 131 mixed-residential units; 50,000 sq feet commercial in mixed-use buildings; formal parks; greenway

Residential density: 2.77 units/acre

IMPLEMENTATION STRATEGIES

IMPLEMENTATION STRATEGIES

In order for the vision and recommendations expressed by this Plan to be realized, specific implementation steps will need to be taken by the Town of Wendell and the other community stakeholders. Many of the recommended implementation steps seek to provide the conditions under which the vision can be achieved by way of providing sensible land use regulation, necessary public investments, the development of appropriate programs and policies, and other actions.

The implementation of this Plan will depend on action being taken to:

- Revise existing development regulations;
- Undertake more detailed studies to resolve and explore the opportunities and constraints identified by this Plan;
- Promote and assist specific objectives; and,
- Make infrastructure investments.

The execution of the implementation steps will likely be phased and is subject to a variety of factors, which determine their timing. These include:

- The availability of personnel and financial resources necessary to implement specific proposals;
- Whether an implementation step is a necessary precursor to or component of the rational evaluation of a new development project;
- The interdependence of the various implementation tasks, in particular, the degree to which implementing one item is dependent upon the successful completion of another item; and,
- The relative severity of the challenge which a particular implementation task is designed to remedy.

In view of these factors, it is not possible to put forward a precise timetable for the various implementation items. The tables that follow categorize the nearly 50 general recommendations of the Plan and suggest timetables for implementation. The priority for implementation will be listed by the period in which items should be completed. Year 1 items are the highest priority while Year 10+ project could be completed as resources allow. It is expected that Year 1 items would be completed during the 2007-2008 Fiscal Year.

Key:

Town - Town of Wendell
NCDOT - North Carolina Department of Transportation
CAMPO - Capital Area Metropolitan Planning Organization
RTRP - Research Triangle Regional Partnership

Page Number	Project/Task	Implemented By	Coordination With	Year 1	Year 2-5	Year 5-10	Year 10+
STUDIES, PLANS AND COORDINATION							
65	Develop plans for Wendell Boulevard Business Park	Town, property owners	Chamber of Commerce, RTRP	X	X	X	
66	Establish "qualified sites" for business location	Town, property owners	Chamber of Commerce, RTRP	X	X		
33	Coordinate Local Land Use Planning with Regional Transportation Planning	Town	Knightdale, Zebulon, CAMPO, NCDOT, TTA	X	X	X	X
32	Develop a Comprehensive Pedestrian Plan	Town	NCDOT		X		
35	Continue to implement the Greenway Plan, coordinate with adjacent municipalities, and look for new greenway opportunities	Town, Wake County	Knightdale, Zebulon, TPL, property owners	X	X	X	X
37	Complete a Town-wide Bicycle Facilities Plan	Town	NCDOT		X		
37	Facilitate the development of bicycle facilities on identified roadways as roadway projects and development projects occur	NCDOT, developers	Town, developers	X	X	X	X
38	Promote and facilitate the development of local and regional transit service	TTA	Town, CAMPO, developers	X	X	X	X
41	Implement the Collector Street Plan and the Roadway Network plan	Town	developers, NCDOT, CAMPO	X	X	X	X
43	Develop conceptual engineering plans for Wendell Boulevard future cross-sections; coordinate development of future cross-sections in land development process	Town, NCDOT	property owners, developers		X		
47	Develop engineering plans for intersection improvements at Wendell Boulevard and Selma Road	Town, NCDOT	property owners, developers		X		
POLICY AND ORDINANCE AMENDMENTS							
19-28	Adopt and apply the Framework Map for use in land use policy decisions	Town Board	Planning Board, Public, Town Staff	X			
20	Use the Framework Map as the basis for developing new zoning districts and standards	Town Board	Planning Board, Public, Town Staff	X			
22	Develop riparian buffer policy and regulations for streams and water bodies/wetlands in the planning area	Town Board	Planning Board, Public, Town Staff	X	X		
27	Establish and adopt development standards for Wendell Boulevard Gateway Corridor	Town Board	Planning Board, Public, Town Staff	X			

Page Number	Project/Task	Implemented By	Coordination With	Year 1	Year 2-5	Year 5-10	Year 10+
51	Establish and adopt development standards for the downtown area	Town Board	Planning Board, Public, Town Staff	X			
68	Use density-based requirements in residential districts	Town Board	Planning Board, Public, Town Staff	X			
68	Develop ordinance standards to encourage a greater range of housing types	Town Board	Planning Board, Public, Town Staff	X			
69	Create design standards for infill development	Town Board	Planning Board, Public, Town Staff	X			
32	Link land use and transportation decisions consistent with Town Plan recommendations	Town Board	Planning Board, Public, Town Staff	X	X	X	X
32	Apply context-sensitive design standards in capital projects and zoning ordinance amendments	Town Board	Planning Board, Public, Town Staff, NCDOT	X	X	X	X
35	Adopt new development standards for sidewalks	Town Board	Planning Board, Public, Town Staff, NCDOT	X			
41	Establish stronger subdivision regulations for street connectivity	Town Board	Planning Board, Public, Town Staff, NCDOT	X			
41	Adopt a "Complete Streets" policy	Town Board	Planning Board, Public, Town Staff, NCDOT	X			
41	Udpate standards and ordinances to include the street design recommendations in the Collector Street Plan	Town Board	Planning Board, Public, Town Staff, NCDOT	X			
CAPITAL IMPROVEMENTS							
56	Use back-in angle parking on Main Street and other downtown locations	Town	Downtown property and business owners	X	X		
56	Replace street trees on Main Street	Town	Downtown property and business owners	X	X		
56	Plant street trees and improve the streetscape on secondary streets in downtown	Town	Downtown property and business owners	X	X		
58	Develop new Town Hall	Town	property owners		X		
58-60	Develop downtown parks and plazas	Town	property owners, developers		X	X	

Page Number	Project/Task	Implemented By	Coordination With	Year 1	Year 2-5	Year 5-10	Year 10+
59	Develop Town Square farmer's market site	Town	Chamber of Commerce, property owners	X	X		
60	Establish Depot Square public park/plaza	Town	property owners, Downtown Bus. Org.		X	X	
41-42	Implement gateway treatments at identified locations	Town	NCDOT, property owners, Chamber	X	X	X	
SUPPORT AND ASSISTANCE							
51-54	Plan and promote redevelopment for North Main Street	Property Owners	Town, Chamber of Commerce	X	X	X	
55	Encourage and facilitate mixed-use and residential infill development and redevelopment in downtown area	Property Owners	Town, Chamber of Commerce	X	X	X	
57	Promote and assist in development of new library and Historic Society building	Wake County Library system	Town, Historic Society, Chamber of Commerce		X		
61-62	Promote attractive storefront lighting, signage, and merchandising for downtown businesses	property and business owners	Downtown business association, Town	X	X	X	X
62	Promote and develop public art and art campaigns downtown	Downtown business association	Town, Chamber of Commerce; artists	X	X	X	X
70-71	Support and encourage residential, mixed-use developments consistent with concept plans	Property owners, developers	Town	X	X		
MARKETING, BUSINESS, AND PROGRAM DEVELOPMENT							
62	Establish Downtown Wendell business organization/association	business owners, property owners	Town, Chamber of Commerce	X	X		
66-67	Create a town marketing package, including a logo and brand identity and marketing website.	Chamber of Commerce	Town, business/property owners	X	X		
66	Develop an incentive policy for new or expanding businesses as the Town of Zebulon has done.	Town	Chamber of Commerce	X	X		
66	Inventory and market the available commercial buildings and land.	Chamber of Commerce	Town, property owners	X			
66	Convene discussions with regional Chamber of Commerce and Economic Development representatives regarding marketing and enhancing economic development opportunities in Wendell.	Chamber of Commerce	Town	X			