Under its enabling legislation, the City-County Planning Board is responsible for preparing and maintaining a comprehensive plan for Forsyth County. The *Legacy Development Guide*, the County's overall plan for managed growth in the community, was adopted in 2001. Comprehensive plans take a broad, communitywide perspective for guiding growth and development. *Legacy* includes chapters on growth management, transportation alternatives, regional planning and development, economic vitality, environmental quality, open space, parks and recreation, city and town centers, building better neighborhoods, community character, community life, and active citizenship.

The Planning Board prepares a series of Area Plans for the City and County in an effort to translate *Legacy* into more precise terms, which can be followed on a community level. An Area Plan generally contains information about the planning area's existing conditions and recommendations for guiding future growth and development. Citizen participation is an important part of the Area Plan process, and a Citizens’ Steering Committee is created by the Planning Board to work with staff as they interpret *Legacy* for each individual community.

Area Plan boundaries are determined in part by the Growth Management Plan in *Legacy*. This Area Plan covers portions of the Suburban Neighborhoods and Future Growth Areas, as defined in the *Legacy* plan. Suburban Neighborhoods include a large portion of the county and most of the small towns where suburban development has occurred in recent decades. It is also the area with the most undeveloped land where much of the future residential, commercial and industrial development should occur. Future Growth Areas do not usually have sewer or other facilities and services to support urban development. However, because of their potential to be served efficiently by sewer and other facilities and services in the future and/or their proximity to towns, major roads and other public investments, the Growth Management Plan calls for them to eventually become urban. Development in these areas will be discouraged until the Municipal Services Area is more fully developed.

An Area Plan does not change the zoning of an area. The Plan contains guidelines to help the Planning Board, governing bodies, community leaders and neighborhoods of Forsyth County to make decisions on zoning, public investment, and private initiatives.

Upon adoption, each Area Plan becomes a part of the comprehensive plan, *Legacy*. While the Area Plan process seeks extensive involvement on the part of the residents, property owners, and investors, the Planning Board has the responsibility to see that each Area Plan is consistent with the broad public interest and with the elements of the comprehensive plan.
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Introduction

**Boundaries of the Study Area**

The Union Cross/Southeast Forsyth County planning area encompasses approximately 16,000 acres in the southeastern corner of Forsyth County. The planning area is generally bounded by Interstate 40 on the north, the Forsyth County line on the south and east, and Ridgewood and Willard Roads on the west.

The planning area, shown on Map 1, includes three municipalities as well as large areas that are part of unincorporated Forsyth County. The Union Cross Business Park in the western part of the planning area is within the city limits of Winston-Salem. The planning area along I-40 between NC 66 and Union Cross Road and the recently annexed 935-acre Caleb's Creek development along both sides of Teague Lane are within the town limits of Kernersville. A small area along North Main Street at the Forsyth-Guilford County line is within the city limits of High Point. The remainder of the area is within the planning jurisdiction of Forsyth County.

**Relationship of the Study Area to the Comprehensive Plan**

Legacy, Forsyth County's development guide, serves as the framework on which all area plans are built, both geographically and as a policy guideline. The Growth Management Plan chapter of Legacy defines a series of specialized areas including the Future Growth Area, the Suburban Neighborhoods and Metro Activity Centers. Each of the defined areas has specific characteristics and recommendations, which will be discussed in the Recommendations section of this plan.

Most of the planning area, about 95%, is designated as Future Growth Area in the Growth Management Plan of Legacy. The remaining 5% of the planning area, the area around the Interstate 40/NC 66 interchange and the area in and around the Union Cross Business Park, is designated as Suburban Neighborhoods.

Abbotts Creek Apartments in Kernersville.

Approximately 40% of the active farms in Forsyth County are in the Union Cross planning area.
Citizen participation was a critical part of the Area Plan process. A Citizens’ Steering Committee (CSC) was established to work with staff throughout the planning process. The CSC included a variety of people concerned about the planning area including residents, merchants, business people, farmers, property owners, and representatives of institutions and organizations. An Interdepartmental Committee comprised of representatives from various City and County departments was also formed to give input into the process and review the final recommendations.

The first step in the planning process was the assessment of current conditions and a review of existing plans. A handbook was created for the CSC containing a summary of existing land use patterns, demographics, historic resources, transportation features, and other additional information the CSC needed to make recommendations for the planning area.

While existing conditions information was being compiled, the CSC conducted a Community Visioning Process. Staff facilitated this process to assist themselves and the CSC to determine what the citizens of the area would want their community to be like in the future. Once the Vision was defined, goals and objectives were identified that could help achieve the Vision. These discussions, along with the policies spelled out in Legacy, served as the basis for the next step in the process, creation of a land use plan and the formulation of recommendations by the CSC.

After the CSC made its recommendations, the Planning Board reviewed them for consistency with the broad public interest and with the Legacy Development Guide. The Planning Board held a public hearing to consider the plan before recommending it for adoption. The document was then forwarded to the Forsyth County Board of Commissioners and to the Winston-Salem City Council for consideration, amendment, and adoption after a public hearing. The adopted plan will be used on an ongoing basis by the Planning Board, the Board of County Commissioners and the City Council to guide future land use, infrastructure, and public investment decisions. An implementation plan is formulated to outline the tasks and timing needed for each recommendation.

Figure 1. Area Plan Process
General Character

The Union Cross planning area has traditionally been a largely undeveloped area of southeastern Forsyth County that has a special character and sensitive environmental constraints, which the local community values and wishes to conserve. It contains significant prime farmland and 40% of the active farms in the county are in this area.

However, because of its location between Winston-Salem, Kernersville, High Point and Greensboro, and the relatively recent construction of US 311 and Interstate 40, the area is experiencing increasing development pressure. The proposed construction of a FedEx cargo facility at the Piedmont Triad International Airport, twelve miles to the northeast, could further increase development pressure in the area.

Demographics

The planning area has had steady population growth during the decade between the 1990 and 2000 Censuses. The population of the planning area has increased by over 27% during that time, which is higher than the county's 15% overall growth rate.

The area grew from an estimated population in 1990 of 5,944 to 7,577 in 2000.

In 1990, there were an estimated 2,584 housing units within the planning area. This number grew to 3,294 by 2000. Recent City-County Planning Board subdivision approvals of over 300 lots off Glenn Hi Road and the Town of Kernersville's mixed use rezoning of 935 acres off Teague Lane will greatly increase the housing supply in the area. The Caleb's Creek project alone will consist of 2,300 housing units, plus a village center.

Existing Land Use

Agricultural

The Union Cross area has traditionally been an important agricultural area of the county. Approximately 41% of the land area is undeveloped and a substantial portion of that land is farmed (see Map 2). The Union Cross planning area has some of the best farmland in the county and has supported much agricultural activity. This agricultural heritage is reflected in the significant amount of land in the study area, approximately 30%, that is assessed for taxation according to its present use as farmland. Under the program, tracts 10 acres or larger that have had at least $1,000 in farm sales per year for the past three years qualify to be appraised at their present use value.

Approximately 70% of the soils in the area are considered to be prime farmland based on the Forsyth County Soil Survey. The majority of these soils is in floodplains and subject to flooding. Some of the soils in this area are considered wetlands and permits are required prior to any land disturbing activity.

The USDA Farm Service Agency estimates that there are over 400 tracts of farmland in the Union Cross area and more than 300 individuals involved in farming. Tobacco is the principal cash crop in the area and the primary source of income for many farmers. Hay and pasture land covers the greatest number of acres in the area. Beef cattle and horses are the primary livestock in the area. The principal field crops are soybeans and wheat. Limited acreage of corn, barley, and oats are also grown. Small acreages of fruit and vegetable crops are also grown in the area.

The USDA Census of Agriculture indicates that although the majority of the farmers in Forsyth County are part-time, over 45% consider farming as their principal occupation. While this statistic is countywide, it is likely to reflect the Union Cross portion of the county as well.

Residential

Much of the current residential development is located along two older routes through the area – NC 66 and High Point Road – though portions of Teague Lane, Watkins Ford Road, Union Cross Road and Gumtree Road have seen their share of residential development as well. Away from these roads, the planning area is largely undeveloped. An estimated 29% of the land is in residential estates – residential homes on five or more acres. (In many of the residential estate instances, the property may be assessed for its present use as farmland.)
Additionally, 14% of the area is comprised of single-family dwellings.

**INDUSTRIAL**
There are 603 acres of land in industrial use in the study area dominated by a business park and two crushed-stone quarries. The Union Cross Business Park is a 400-acre, public-private venture on Wallburg Road, adjacent to US 311. The park opened in 1997 and currently about 200 acres of the park has been developed, mostly for warehousing and distribution uses.

**PUBLIC/SEMI-PUBLIC**
The 443 acres of land devoted to public/semi-public land uses includes schools, parks, churches, and golf courses (see Map 3). The two public golf courses in this category are Maple Leaf on Hastings Road and Old Home Place on Wallburg Road. Golf courses are often intermediate uses, giving way to more intense development when land values increase.

The Union Cross Park is located in the planning area and has various recreational amenities. Glenn High School, Southeast Middle School, Union Cross Elementary School and Bishop McGuiness High School are also located in the planning area and have limited recreation facilities available for public use. There are no library facilities in the planning area. The nearest library is the Kernersville Branch Library in downtown Kernersville. There are seventeen churches representing a range of religious denominations located throughout the study area.

There are three volunteer fire stations serving the planning area, as well as professional fire protection from the Town of Kernersville. The Horneytown Fire Station is located in the extreme southeastern portion of the planning area at the intersection of High Point Road and Horneytown Roads. The Union Cross Fire Station is located at the intersection of High Point and Watkins Ford Roads in the southwestern section of the planning area. The Beeson Cross Road/Kernersville Station 44 is located just north of the planning area at the intersection of Old Salem and Union Cross Roads. There are no police stations located in the planning area. The area is served by the Forsyth County Sheriff's Office and the Town of Kernersville Police Department.

**TRANSPORTATION FEATURES**

**ROADS**
The planning area has a highly networked transportation system that establishes an ease of access within the area, as well as providing convenient connections to destinations in the county and the state. There are two main transportation routes that traverse the planning area. Forming the northern boundary, Interstate 40 crosses the area in an east/west direction; to the south, US 311 traverses Forsyth County from High Point to the southeastern edge of Winston-Salem. It bisects the area in a generally east/west direction. It should be noted that US 311 is a view corridor under the Unified Development Ordinances with restrictions on certain signage and development.

In order to provide basic standards for analyzing the area's road and street system, each street is classified into its general circulation function. Generally, streets are classified as either major or minor thoroughfares, collector streets or local streets. Thoroughfares provide direct connections between residential neighborhoods and commercial, industrial/employment centers in the area. These roads interconnect the principal traffic generators within urban areas and important rural routes. Collector streets collect local residential, commercial, and industrial traffic and direct it to thoroughfares or freeways. Collector streets should be designed to discourage through movements in residential areas and encourage highway movement on thoroughfares and freeways. The collector streets in the planning area are: Hastings Road, Pine Meadows Road, Sawmill Road and Temple School Road.

**PUBLIC TRANSPORTATION**

**Local Bus Routes**
Local commuter bus service has not been extended into the planning area; however, regional commuter bus service is being provided by the Piedmont Authority for Regional Transportation (PART). The PART service links the transit systems of Winston-Salem, Greensboro and High Point and includes a local stop in Kernersville, north of the planning area.

**RAIL SERVICE**
The nearest commuter rail service terminals are located in Greensboro and High Point.
BICYCLE ROUTES
Route #16 (along Old Salem Road and Bunker Hill/Sandy Ridge Road) and Route #24 (along High Point Road) are designated as county bike routes. Additionally, the Mountains-to-Sea Cross State Route traverses the planning area along Gumtree and Wallburg Roads, south on High Point Road, to Watkins Ford Road, along NC 66, then onto Payne Road and out of the county into Guilford County.

AIRPORTS
Approximately twelve miles northeast of the planning area, in Guilford County, the Piedmont Triad International Airport provides the Triad with direct and connecting commercial air passenger and air freight service to national and international destinations.

The majority of private air traffic in Winston-Salem and Forsyth County departs or originates at the Smith Reynolds Airport. This airport, operated by the Airport Commission of Forsyth County, serves the local citizens as a general aviation airport with limited commuter flights. The airport is located approximately seven miles northwest of the study area.

UTILITIES
The Winston-Salem/Forsyth County Utility Commission is responsible for distributing water and providing wastewater treatment in most of the Union Cross planning area. The City of High Point, under an annexation agreement with the Town of Kernersville, is authorized to provide these services to a small area in the southeast corner of the planning area. Public water is generally available throughout the planning area with the exception of the eastern section of Watkins Ford Road.

Existing sewer lines providing wastewater collection are currently very limited in the planning area. The lack of public sewer in most of the planning area currently limits residential development to half-acre lots or larger served by individual septic systems. Commercial development is generally not feasible without public sewer. The availability of more widespread public sewer service will greatly increase the development potential of the area. A new wastewater pump station on Watkins Ford Road will serve the recently approved 935-acre, mixed-use Caleb’s Creek development. The pump station and sewer main has been sized to allow service to an additional 3,000 acres of the Lower Abbotts Creek Basin that drains to the pump station.

NATURAL RESOURCES
The Union Cross area has an abundance of streams, creeks, floodplains, wetlands and other important natural resources. An understanding of these environmental resources and their development limitations is necessary in order to appreciate their function in the study area.

Floodplains are geographic features that formed through the natural process of stream hydrology. During prolonged or intense rainfalls, surface water runoff sometimes exceeds a stream channel's capacity to carry it. On such occasions, stormwaters overtop the stream channel and flood onto broad, flat, adjacent lands called floodplains.

Because floodplains temporarily store excess surface water runoff until the rainfall subsides enough for streams to return to their channels, they are inherently hazardous locations in which to build. For this reason, federal, State, and local agencies regulate activities in these flood-prone areas.

Many properties within the Union Cross study area are affected by floodway and floodway fringe regulations. The Unified Development Ordinances (UDO) restricts uses in floodways to primarily agriculture, recreation, and infrastructure uses. However, some unpaved, ground-level parking areas are permitted. The UDO specifically prohibits storage of hazardous substances in these areas.

WETLANDS
Wetlands is a general term applied to open water habitats and seasonally or permanently waterlogged land areas, including lakes, rivers, and estuaries and freshwater marshes. Wetland habitats, especially marsh and bog areas, are among the most vulnerable to destruction since they can be drained and reclaimed for other uses.

In the past, wetlands were often regarded as waste-land – sources of mosquitoes, flies, and unpleasant odors. More recently, however, with our increased understanding of ecological processes, we have learned that wetlands are valuable natural resources that provide many benefits to people and the environment. Among other things, wetlands: 1) provide important habitats for fish, wildlife, and vegetation; 2) act as filters for pollutants; and, 3) help improve water quality by storing stormwater runoff, reducing flooding, controlling sediment, and providing
water storage to help recharge the groundwater system. Typically, development in wetlands requires permits from the North Carolina Department of Water Quality and the United States Army Corps of Engineers.

**WATERSHEDS**

A watershed, sometimes called a drainage basin, is the land area that drains into a body of water such as a lake, stream, or river. All land is in some type of watershed. However, in Forsyth County, special regulations only apply to water supply watersheds – areas that drain to water bodies used to provide public drinking water.

North Carolina water supply watershed regulations attempt to restore or maintain the natural stormwater filtration process, which is lost when land is developed with buildings and pavement. Protection measures typically include density restrictions, land coverage limitations, vegetated stream buffers, use prohibitions, critical areas or protected areas, and stormwater controls.

Most of the planning area is within the Abbotts Creek or Oak Hollow/Randleman Lake water supply watersheds. Developments within the water supply watershed areas must meet the specific criteria in order for development approval to be obtained.

**NATURAL HERITAGE INVENTORY SITES**

There are no properties within the planning area that are identified in the Forsyth County Natural Heritage Inventory. The North Carolina Natural Heritage Program inventories, studies and facilitates protection of the rarest and most outstanding elements of the natural diversity of our state. A Natural Heritage Inventory (NHI) of Forsyth County was undertaken by the Piedmont Land Conservancy in 1996. Eighty-seven sites with potentially significant natural plant and animal communities and rare species occurrences were selected for field study. Twenty-three of these sites were included in the final NHI which was completed in 1998. The NHI provides the community with information that facilitates protection of these environmental resources.

**STEEP SLOPES**

Steep slopes are less suitable for development as they are prone to erosion. Building in these areas can be cost prohibitive. Although topography varies throughout this region, Forsyth County topographic maps indicate that most of the steeper terrains are located near lakes, rivers, and streams. The Environmental Resources and Constraints Map, Map 4, identifies steep slopes as those greater than 15%.

**HISTORIC BACKGROUND AND RESOURCES**

The Union Cross planning area contains the sites of several historic settlements, including the southeastern portion of present-day Forsyth County originally known as Abbotts Creek. This circa 1753 settlement, as well as the later settlement of Union Cross (circa 1900) to the north of Abbotts Creek, were part of Anson and Stokes County before Forsyth County was formed in 1849. In 1921, an additional piece of land was added to Forsyth County on the south side of Abbotts Creek Township. This wedge-shaped piece of land was transferred from Davie County by act of the State legislature. Virtually all of the land identified in the Union Cross planning area was located outside of the original Wachovia Tract – a 100,000-acre tract located in the heart of present-day Forsyth County and deeded to the Moravians in 1752 by Lord Granville of England.

The original European settlers of the Abbotts Creek planning area are thought to have been of German descent, although they were not Moravians like their neighbors to the north and west. Perhaps these original settlers choose to make their homes near other German speakers that had similar cultural backgrounds and traditions. Regardless of the cultural ancestry of the planning area, the historic character of this area – that of a rural, agricultural community with a dispersed development pattern – has been fairly well preserved to the present day. This southeastern portion of Forsyth County is significant because of the continuous family ownership of large tracts of land, as well as the remnants of historic agricultural-based homesteads.

Many types of historic structures exist within the Union Cross planning area, including single-family homes, barns and agricultural outbuildings, small country stores, civic buildings and historic farmsteads. Houses range in size and architectural detail from modest log cabins to Greek Revival-style homes to I-Houses to Craftsman bungalows.

The most recent survey of historic architectural resources in the Union Cross planning area, *Frontier to Factory, An Architectural History of Forsyth County*, was completed in 1981. Of the thirty-nine historic resources that the survey
identified within the planning area, a total of 28 resources are remaining. A majority of the historic buildings are currently used as single-family homes. A number of buildings are in various stages of disrepair or are abandoned. Many of the demolished structures appear to have been destroyed to make way for new residential development, while some of the buildings may have been razed after years of neglect.

Unfortunately, there has not been a detailed investigation of the historic resources in this part of the county in twenty years. A new survey is needed to identify those resources that have become historic (over 50 years old) since 1981 as well as those historic resources that were not included in the previous survey. A list of the existing historic resources identified in the planning area is included in Appendix A.

**ANNEXATION AGREEMENTS**

As has been previously stated, this plan is a multi-jurisdictional plan, affecting four jurisdictions: Forsyth County, Winston-Salem, Kernersville and High Point. It should be pointed out that the cities of Winston-Salem and High Point and the Town of Kernersville have entered into annexation agreements within the Union Cross planning area.

Annexation agreements help in planning and providing sewer and water infrastructure in an orderly fashion. An annexation agreement is a legal agreement between municipalities that defines territory that each participant may not annex within a specific time frame, typically twenty years. The agreement sets limits on each municipality's future annexation into an area, thus establishing its potential future jurisdiction. Several benefits result from this type of agreement. Municipalities can efficiently plan and provide municipal services, including water and sewer; the agreements promote the orderly and logical extension of municipal boundaries; and, they reduce uncertainty among property owners and public and private development interests.

**EXISTING PLANS IN STUDY AREA**

**LEGACY DEVELOPMENT GUIDE (Adopted in 2001)**

In 1995, the City-County Planning Board of Forsyth County and Winston-Salem initiated a communitywide planning process for the creation of a new plan called *The Legacy Development Guide*. *Legacy* had considerable public input during its five-year development process and the plan was adopted by Forsyth County and all of its municipalities. One of the major goals of the plan is to manage growth and development to reduce sprawl, create a more compact and balanced urban development pattern, and to preserve open space and rural character. The plan proposes to accomplish this goal by developing incentives and ordinances that would reshape our current dispersed suburban development into more compact, mixed use, transit- and pedestrian-friendly patterns.

The Growth Management Map in *Legacy* divides the county into three main planning areas: Municipal Services, Future Growth, and Rural. Most of the Union Cross planning area is in the Future Growth Area. The plan directs much of our anticipated growth into the Municipal Services Area, which already has services like good transportation and public wastewater collection and treatment. The Future Growth Area is a reserved area that will grow and become more developed only when adequate public facilities are available. The Rural Area is to remain in agricultural and very low-density residential uses over the life of the plan. The plan also identifies the area around the NC 66/I-40 interchange for a commercial Activity Center, called a Metro Activity Center (MAC).

The Legacy Citizens Steering Committee, in drafting the Growth Management Map, had extended discussions about the appropriate designation for the Union Cross area, which had been designated as a Rural Area in the previous comprehensive plan, *Vision 2005*. The Committee decided to change the designation from Rural Area to Future Growth Area, in recognition of its central location between Winston-Salem, Kernersville, High Point and the Piedmont Triad International Airport with its planned FedEx regional hub. Recognizing its growth potential, the Committee called for this area to be given a high priority for preparation of a detailed area plan. The Committee also recommended that the area plan be developed around a concept of "conservation development" which would focus the inevitable growth at certain locations and into more compact forms while at the same time preserving much of the agricultural and rural character of the area.
KERNERSVILLE DEVELOPMENT PLAN  
(Adopted 1999)

The Town of Kernersville went through a visioning process called "Kernersville 2020." As a result of that process, the Kernersville Board of Aldermen formally adopted development goals to help achieve their vision. The goals emphasized the importance of enhancing Kernersville's "small town atmosphere" and guiding growth to create Kernersville as a "unique high-quality community within the Triad." The protection of the "natural environment" is also cited as an important goal. To achieve those development goals, the Town identified the need to maintain a vibrant downtown; promote commercial clusters versus commercial strips; preserve historic architecture; encourage commercial and industrial areas to incorporate historic architectural façade designs and materials; maintain residential areas as predominantly single-family; develop a system of sidewalks, greenways and parks; promote a diverse economic base; create a strong industrial, office and commercial tax base; require enhanced landscaping; and protect watersheds, air quality and wildlife habitat.

I-40/NC 66 DEVELOPMENT GUIDE  
(Adopted 1992, Updated 2001)

This study focused on the then new I-40/NC 66 interchange area bounded by Abbots Creek, Shields Road, Little John Road, Macy Grove Road, the Guilford County line, Bunker Hill-Sandy Ridge Road, and Old Salem Road. The I-40/NC 66 interchange was identified as an "Activity Center" in Vision 2005, the previous comprehensive plan. This guide was the first in a series of interchange plans planned for the new I-40 corridor.

Issues and problems addressed by the guide include watershed protection, the provision of retail and other services to the nearby neighborhoods as well as to passing motorists, the extension of sewer lines, the protection of existing single-family uses, and economic development. The guide called for corporate/industrial uses for the property north of Interstate 40, comprehensive mixed use for the southwest quadrant, and office use in the southeast quadrant fronting NC 66.

The plan has met with limited success in zoning decisions, particularly in promoting comprehensive development in the southwest quadrant.

The plan, with support from the recently adopted Legacy Development Guide, was revisited to identify design guidelines for the Metro Activity Center (MAC). Staff from the Town of Kernersville and the City-County Planning Board met with local residents during community meetings to further define development standards. They included, but were not limited to: circulation, parking and pedestrian access, building design, signage, landscaping, public open space and public transportation.

The update was adopted by the Town of Kernersville Board of Aldermen in October 2001 and by the City-County Planning Board in January 2002.

I-40/UNION CROSS DEVELOPMENT GUIDE  
(Adopted 1992)

This study focused on the then new I-40/Union Cross Road interchange bounded by Fiddlers Creek, Solomon Drive, Kenosha Drive, Glenn Hi Road and Glenview Drive. This guide was the second in a series of interchange plans focusing on the I-40 corridor.

Problems and issues included watershed protection, preservation of existing single-family developments in the area, the visibility of development from I-40, the provision of neighborhood services, and the potential negative impacts of land uses attracting passing motorists on I-40. A quadrant was chosen for neighborhood services including a grocery store, and strategies were developed for lower-intensity uses on the other three quadrants of the interchange in hope of negating the "four corners of commercial" pattern and the resulting heavy automobile traffic seen at most major interstate interchanges.

This plan has met with success in achieving its goals. A shopping center for use by local residents was developed on the northeast quadrant as recommended in the guide, and more intense uses proposed for the other quadrants have been directed to the I-40/NC 66 interchange.

HORNEYTOWN/OLD US 311 DEVELOPMENT ASSESSMENT  
(Adopted 1991)

Annexations by the City of High Point into Forsyth County prompted a request for this study from Forsyth County officials. The purpose of the assessment was to evaluate the prospects and timing for potential urban development of sites within the study area bounded by Mariondale Drive, Skeet Club/Tanglebrook Roads, the Davidson County line, and NC 66.
Issues included the potential provision of sewer and water by the City of High Point, future annexations by High Point, economic development, transportation improvements, future urban land uses, the visual quality of the area, and appropriate housing types and densities. The land use plan is currently being used for zoning decisions in the planning area.

**US 311 AREA PLAN**  
*(Adopted 1984)*

At the time this area plan was drafted, US 311 was a new freeway extending from the southeastern edge of Winston-Salem to High Point. The study area includes not only the immediate corridor, but also a large part of the surrounding land. This section of the county was chosen for special consideration because construction of the road opened up new development possibilities in rural and suburban locales. This was the first comprehensive area plan done for this part of the county.

Issues and problems addressed by the plan included watershed protection, farmland protection, the provision of urban services, the visual environment, and new development pressures. The plan divided the study area into five segments, each focused on a major interchange. A land use plan was developed for each of the five segments, including "conditional uses" for sites needing more detailed study than provided on the general land use maps. While the plan calls for relatively little development in the middle and eastern section of the US 311 area, there were opportunities for development recommended closer to Winston-Salem where urban services and facilities were available at the time the plan was written.

**HIGH POINT LAND USE PLAN**  
*(Adopted 2000)*

High Point adopted a land use plan in April 2000. Included in their planning area is the extreme southeastern corner of Forsyth County encompassing the area east of NC 66 and south of Squire Davis Road, including the area around the NC 66/US 311 interchange. The future land use map recognizes some of the existing land uses in the area including the Vulcan quarry at the NC 66/US 311 interchange, and the older development along North Main Street at the Forsyth-Guilford County line. The land uses proposed for most of the remaining area are either low-density residential at up to five units per acre, or future growth, which is defined as rural and environmentally sensitive lands not intended for development within the five-year time frame of this adopted plan.

**GUILFORD COUNTY AIRPORT AREA PLAN UPDATE**  
*(Endorsed by the Forsyth County Board of County Commissioners, 2004)*

This study was a regional planning effort by the counties of Guilford and Forsyth, the cities of Greensboro and High Point, and the Town of Kernersville to provide general guidance, using broad land use categories, to landowners, developers, elected officials and others in the airport area. In the portion of the planning area that falls within the Airport Area Plan Update, future land use is recommended to be mixed-density residential. This category is generally defined as areas suitable for residential use that will be served by public water and sewer systems. There will be a mixture of housing types, service-oriented commercial uses and institutional uses in these areas. The Vision Statement recommends that some developments will have "high-density mixed uses in a compact layout that facilitates pedestrian activity and transit use" similar to the Metro Activity Center (MAC) concept designated for I-40 and NC 66.

**Hay is one of the predominant cash crops in the area.**
Legacy is a general, long-range policy guide for decisions concerning the overall growth and development of the community. The recommendations for development patterns contained in Legacy are general in nature, rather than focused on decisions for land use at specific sites. Legacy was adopted as an official public document but is not a development ordinance. Because the development guide is broad in nature, detailed plans such as the Union Cross/Southeast Forsyth County Area Plan are needed to provide more specific guidance for future growth, appropriate land uses, and infrastructure at a community and neighborhood level. The Growth Management Plan and its components contained in Legacy are the basis for area plan recommendations.

Growth Management Plan

The approach proposed in Legacy for managing growth and development is not whether our community will grow, but how. The predominant development pattern in the county over the past fifty years has been auto-dependent, low-density residential development with large-scale commercial projects at the urban fringe (urban sprawl). With a limited supply of land for development, a new development model must be created that will allow us to grow, maintain our economic vitality and achieve a high quality of life. This type of development is often referred to as “smart growth.” According to the Urban Land Institute, “smart growth” is “growth that is economically sound, environmentally friendly, and supportive of community livability – growth that enhances our quality of life.” The Growth Management Plan in Legacy is proposed to manage growth, create a more compact and balanced urban development pattern, and preserve open space and rural character.

The Growth Management Plan divides the county into three major planning areas: 1) the Municipal Services Area; 2) the Future Growth Area; and, 3) the Rural Area. The Municipal Services Area is further divided into four sub-areas: Center City, Urban Neighborhoods, Suburban Neighborhoods, and Town Centers. In addition, Metro Activity Centers, Urban Boulevards, and Rail Corridors/Stations may overlay these subareas (see Map 1).

Suburban Neighborhoods

This area includes a large portion of the county where most suburban development has taken place in recent decades. It is also the area with the most undeveloped land where much of the future residential, commercial, and industrial development should occur. All of the proposed Metro Activity Centers are located within this area. As previously stated, the areas around the I-40/NC 66 interchange and around the Union Cross Business Park are designated as Suburban Neighborhoods.

Metro Activity Centers

The Growth Management Plan proposes to accomplish more compact development in the county in part by concentrating and intensifying development in and around designated Metro Activity Centers (MAC). There is a Metro Activity Center located in the northeastern quadrant of the planning area that was designated in Legacy as the Kernersville South Metro Activity Center. A MAC is a concentrated center of activity that consists of residential, commercial and employment uses and is intended to serve as a regional hub for the surrounding less intensely developed neighborhoods. On a smaller scale, there are also Neighborhood and Community Activity Centers (NACs and CACs) designed to serve neighborhoods, or communities, respectively.

Future Growth Areas

Areas for future growth are generally areas that do not currently have sewer or other facilities and services to support urban development. However, because of their potential to be served efficiently by sewer and other facilities in the future and/or their proximity to towns, major roads and other public investments, the Growth Management Plan calls for these areas to eventually become urban. People living in designated Future Growth Areas can expect to become part of an incorporated municipality in the long term. Development in these areas will be discouraged until the Municipal Services Area is more fully developed and until more detailed land
use plans can be prepared. Development that does occur will be encouraged to install public sewer.

The Union Cross area is predominantly designated on the Growth Management Plan map as a Future Growth Area. It is a largely undeveloped area of the county that has a special character and sensitive environmental features that the local community values and wishes to conserve. The area is located between Winston-Salem, Kernersville, High Point and Greensboro and has other characteristics that also give it the potential for significant future residential, commercial, and industrial development. Special policies and implementation measures for the Union Cross area are intended to promote sustainable development by achieving a balance between the goals of economic development and conservation.

**Other Planning Concepts**

Because Legacy specifically recognized the unique characteristics of the Union Cross/Southeast Forsyth County area, it suggested that conservation development techniques be employed to conserve much of the open space and rural character of the area while allowing for significant residential and nonresidential development. Several planning concepts that will be further discussed in the plan are introduced below.

**Conservation Subdivisions**

Conservation subdivision design (also known as open space subdivisions) is a technique where houses are physically grouped on part of a subdivision tract while leaving the remainder of the site undeveloped. In order to avoid disturbing the equity held by existing landowners, conservation design allows the same number of housing units to be built as are permitted by the conventional zoning regulations. The key difference is that this technique requires new construction to be located on only a portion of the tract being developed. Areas left undeveloped could include prime farmland, wetlands, floodplains, and stands of mature trees or scenic views. This "open space" could be common area for the development or protected by an easement to a land trust.

**Traditional Neighborhood Developments (TNDs)**

Traditional Neighborhood Developments (TNDs) are an alternative to standard subdivisions, shopping centers, office parks, and institutional uses that are rigidly separated from one another through the zoning process. In a TND, a mixture of residential and commercial buildings, public spaces and amenities, and institutional uses are mixed in a compact, pedestrian-oriented arrangement designed to lessen the need for a total reliance on the automobile and to generate a sense of community.

In creating new neighborhoods using TND principles, three major components must be considered: residential development, neighborhood-serving commercial development, and the layout of the street system. What the TND model requires is a movement away from single-use zoning categories and towards an approach that blends various use categories in a compact form.

**Passenger Rail Transportation**

The Piedmont Authority for Regional Transportation (PART) is examining the feasibility of implementing passenger rail service in the Triad. Initial studies included the US 311 corridor with a possible passenger rail station in the vicinity of the Union Cross interchange. PART is currently working on a Major Investment Study (MIS) that includes alternatives for rail and bus rapid transit and anticipates conclusion of the study by 2005.

**Transferable Development Rights (TDRs)**

Transferable development rights (TDRs) is an innovative financing mechanism for the retention of farmland and open space. Under a TDR program, development rights are separated from the other rights of ownership in a parcel of land and sold to a private party, usually a developer. The developer can then transfer those development rights to increase the intensity of development on another property. The local government usually designs a TDR program and designates a "sending area" and a "receiving area." The most obvious advantage of a TDR program is that the private sector, rather than public tax dollars, is paying for preservation of farmland and open space on the parcel from which the rights are purchased. The biggest drawback is that TDR programs are difficult to create, both politically and technically. Expert guidance in establishing a local TDR program would be essential for establishing a successful program in the Union Cross/Southeast Forsyth County area.
FORSYTH COUNTY FARMLAND PRESERVATION PROGRAM

Currently, there are no properties within the planning area that participate in the Forsyth County Farmland Preservation Program. The Forsyth County Farmland Preservation program is a voluntary program in which Forsyth County purchases from farmers the rights to develop their land for non-farm purposes, such as subdivisions and shopping centers. The development rights are held in trust assuring that areas with good soils and active farms will remain in agricultural use. The Forsyth County Board of Commissioners created the program in 1984 and the first development rights were purchased in 1987. To date, the program has protected over 1600 acres of farmland, however, it has not been funded in recent years.

A local driving range at Wallburg and Union Cross Roads.
The Union Cross area and southeastern Forsyth County are poised for a time of accelerated growth and change never before experienced in their history. This traditionally rural and agricultural area is located strategically between the expanding urban areas of Greensboro, High Point and Winston-Salem, making its transformation a virtual certainty. While growth may be inevitable, the effects of change on the community could have many outcomes. Planning now for desired land use patterns, future transportation needs, economic development, and open space and environmental conservation can help ensure that this part of Forsyth County undergoes positive change and retains its high quality of life.

Just as one would not begin a long journey without first identifying a destination, planning for the future begins by defining the kind of place we want a community to become. **Visioning** is the process by which a community defines that future. The visioning process brings together people representing various points of view to create a shared image in both pictures and words of what the community values and how it wants to look in the future. The resulting Vision Statement defines expectations and directions for the future, sets the framework for the detailed recommendations of the plan, and provides a way to measure progress as the plan is implemented.

To kick off the Union Cross/Southeast Forsyth County Area Plan visioning process, members of the community were invited to a visioning meeting held at the Southeast Middle School on October 4, 2001. Approximately 70 people attended the meeting. There was a short presentation about the area and the process for preparing an area plan. Participants were then divided up into small groups and asked to respond to two questions and complete a sentence. The questions were: 1) "What do I like best about the area?" and, 2) "What do I like least about the area?" The sentence to be completed was: "In the year 2015, I want this to be the kind of community where ...." Hundreds of responses were generated from this exercise. All of the responses were recorded on newsprint and posted on the walls of the meeting room. Each participant then reviewed the responses and used five red dots to vote for the responses that best represented his/her feelings about the community. The most common responses can be seen in **Figure 2**.

### Most Voted for Items

**What do you like best?**
- The way the area is now
- Rural character/area
- Preserving farmland

**What do you like least?**
- Others deciding what to do with my land
- Refusal to allow (local) incorporation
- Encroaching cities

**I want it to be the kind of community where....**
- Union Cross remains as it is today
- There is preservation on farms and farmland
- The best farmland in the county still exists

**Figure 2. Visioning Process Responses**
The 14-member Union Cross/Southeast Forsyth County Area Plan Citizens’ Steering Committee spent several meetings reviewing the responses from the community visioning meeting and integrating them into the following vision statement. The Vision Statement is the cornerstone of the plan and describes how the planning area should look in the year 2015. The vision was used to help guide the development of plan goals and recommendations in the following nine categories: agriculture, residential development, environment, rural character/quality of life, historic preservation, economic development, Activity Centers, community facilities and transportation and can be found in Figure 3.

Two crushed-stone quarries can be found in the area.

In The Year 2015 . . .

Managed growth in the Union Cross area and in southeastern Forsyth County has allowed our community to retain the rural character and quality of life that have always made it special. We have succeeded in achieving a balance between development and conservation. Our rural landscape, once rapidly disappearing, has been preserved and is an important part of the community’s quality of life. Working farms are still viable and contribute to our local economy. Natural resources, forested, environmentally sensitive, and recreational areas provide green buffers that have helped preserve the character of the area. We have protected the diversity, integrity and function of our natural systems, including air and water quality.

Regional market forces have brought additional growth and development but careful planning has maximized the benefits of that growth and minimized negative impacts. Commercial development has been concentrated at a limited number of locations to provide convenient access to shopping, services and jobs. Commercial development is designed in a way that fosters a sense of community. Residential developments that include significant amounts of open space have provided a variety of housing options for residents. Neighborhoods are safe and walkable. Superior educational facilities, a smoothly functioning transportation network that encourages pedestrians as well as cars, adequate community and public facilities, and an array of recreational facilities all make our community a very special place in which to live, work, and raise children.

Our vision has been achieved through ongoing cooperation between the public and private sectors of the community and wide, proactive, and continuing participation in the processes of planning for growth. The cooperative spirit among different political jurisdictions is strong. Residents of southeast Forsyth County have had a voice in managing development and land uses in a manner consistent with our vision. Consensus building and a careful balancing of land use, economic and environmental goals have allowed our vision to become a reality.
General policies from *Legacy* provide the framework for recommendations in all area plans. Specific recommendations for the *Union Cross/Southeast Forsyth County Area Plan* were developed through the visioning exercises and the work of the Citizens’ Steering Committee (CSC), the Interdepartmental Committee and the Planning staff.

**LAND USE RECOMMENDATIONS**

Land use recommendations serve as a guide for future development and zoning decisions in the planning area. As directed by *Legacy*, land use recommendations designate locations and formulate policies for compatible infill development, increased residential densities, mixed use areas, neighborhood retail and community services.

The Future Land Use Map (Map 5) provides the location of existing subdivisions, quarries, the Union Cross Business Park and the Caleb’s Creek Development. In addition, it indicates the suggested future locations of Metro, Community and Neighborhood Activity Centers, transit centers, parks and business parks. The map also shows the proposed locations of various types of residential development that the Steering Committee felt best served the future needs of the community.

**AGRICULTURAL LAND USE RECOMMENDATIONS**

The rich history of the Union Cross/Southeast Forsyth County area is tied to its rural environment, culture, and lifestyle. It has become evident through this planning process that the citizens of the area care deeply about the stewardship and preservation of their agricultural roots and way of life. The success of its long-standing agricultural production is attributed to the abundance of prime farmland, which consists of approximately 70% of the study area. However, the qualities that have kept many families in the area for generations are quickly disappearing. According to the American Farmland Trust, North Carolina loses an average of 34,460 acres of farmland each year to development. The latest USDA Census of Agriculture shows that Forsyth County lost 114 farms totaling over 4,000 acres between 1987-1997. The Union Cross/Southeast Forsyth County planning area is a prime example of one of North Carolina's traditionally agricultural communities that is rapidly becoming susceptible to developmental pressure.

Knowing these obstacles, the Citizens’ Steering Committee indicated that one of the main goals of the area plan is to preserve and encourage existing and new agriculture as a contributor to the economy, history and character of the area. In order to achieve this goal, there must be a balance between the inevitable development that will result from a growing population and the desire to keep the community’s agricultural landscape and quality intact. The residents of the community have made it clear that balance must also be attained without severely restricting landowners from making decisions about their properties. There are very strong opinions concerning property owners' rights in the area that must be considered. It must also be strongly emphasized, however, that protecting irreplaceable farmland now will benefit the area and the region for future generations.

**GENERAL RECOMMENDATIONS**

- Preserve existing and encourage new agriculture as a contributor to the economy, history and character of the area.
- Promote and encourage agribusiness.
- Promote farm heritage and agri-"culture."

**SPECIFIC RECOMMENDATIONS**

- Establish voluntary agricultural districts for Forsyth County. (See "Establishing Voluntary Agricultural Districts for Forsyth County," Figure 4, page 21.)
- Re-establish the eligibility of properties within the planning area to participate in the Forsyth County Farmland Preservation Program. Considering that 70% of the soils within the study area are considered to be prime farmland, it would be shortsighted to fail to protect this irreplaceable farmland.
- Encourage the donation of agricultural conservation easements to protect valuable farmland.
from development. Grantors retain the right to use their property for farming, horticulture or other purposes that do not limit agricultural viability. They continue to hold title to the property but may restrict public access, sell, give or transfer their property as they so desire.

- Continue to promote the present use value taxation program for farmland. Land is taxed at its resource value instead of its development value and many farmers in the planning area already take advantage of this tax benefit.
- Encourage community-farming initiatives, such as cooperatives. An example of a cooperative would be a group of small organic beef farmers, who sold their cattle under one contract to an organic meat processor. By selling together, they would be in a stronger position to guarantee a supply and obtain a better contract price.
- Pursue "value-added" opportunities. An example of value-added would be a strawberry farm that produced jams from their strawberries. When selling the jam they would be getting a financial return on the strawberries and the production of jam.
- Explore educational "farm experience" opportunities. Agritourism would bring awareness of agricultural life to urban and suburban dwellers, promote good working relationships with nearby neighbors and bring a source of income to the farmers.
- Explore the profitability of transitioning crops in the area. Transitioning (switching) crops by replacing a product that is becoming less profitable or too expensive to market and maintain to another crop may produce better returns for local farmers.
- Explore mentor programs, which matches near-retirement age farmers with younger ones just starting out. This ensures the transfer of many years of knowledge to the next generation of farmers. These programs may also help young farmers to purchase working farms by providing lower interest rate loans and helping them to find suitable properties.
- Explore Community Supported Agriculture. Community Supported Agriculture (CSA) is a new approach to growing, marketing, and distributing food. CSA is about community and direct connections – between farmers and consumers and between consumers and healthy food. Through CSA, a consumer buys directly from the farmer for a full growing season.
- Continue to work with the Forsyth County Cooperative Extension Office and the Natural Resources Conservation Service to provide support and education to local farmers.
- Collaborate with the southeastern office of the American Farmland Trust in Graham, NC, as a source of information and research.
- Collaborate with groups such as the local 4-H clubs, the Triad Cattlemen's Association and the Triad Horsemen's Associations as networks for social interaction and information sharing.
Many counties in North Carolina have adopted voluntary agricultural district ordinances to help encourage the preservation of commercial agriculture and farmland in the State. These laws have been successful in helping to preserve large areas of farmland in addition to or instead of other measures, such as conservation easements and State and local farmland protection programs. According to the American Farmland Trust, agricultural districts "help create a more secure climate for agriculture by preventing local governments from passing laws that restrict farm practices, and by providing enhanced protection from private nuisance laws." In addition, other incentives for the farm owner may be included as well, such as exemption from county water and sewer systems assessments and connections. These districts have been proven a viable tool in protecting large tracts of land at a low public cost. Also, they are totally voluntary; only farmers who apply to be included may join.

Creating a countywide voluntary agricultural district ordinance may be an economically viable method of farmland preservation for the Union Cross/Southeast Forsyth County area. Currently, existing State and countywide farmland protection programs are severely underfunded, or not funded at all due to across-the-board budget cuts mandated by the State government. Voluntary agricultural districts are very economical options for local government budgets, as there are little or no transaction costs or property purchase costs associated with the acceptance into a district. Consequently, large tracts of land may be preserved at a very low cost to the public and the farm owner.

Voluntary agricultural districts are created at the local government level. This allows for more flexibility in the benefits and restrictions written into the ordinance. Approximately 34 counties in North Carolina have adopted voluntary agricultural district ordinances to date and all have determined their own preservation needs. Most have determined that a certain percentage of prime farmland must be involved, and that properties must already be in a present-use, value taxation program. The amount of land required to create a district varies though. For example, Orange County requires at least 80 contiguous acres, while Guilford County only requires 20 contiguous acres. These can usually be composed of either one minimum-sized tract or two or more tracts equaling the minimum standard.

Other common elements in these districts may provide benefits to farmers as well. Exemptions from forced water and sewer hook-ups are usually included, which save farmers large operating costs. Protection from nuisance cases help to protect farmers from encroaching on suburban dwellers. As the North Carolina Department of Environment and Natural Resources (NCDENR) points out, "Many of the people and businesses are attracted to North Carolina because of our rural beauty and heritage, yet few if any, come to North Carolina to contribute or become a part of our agricultural heritage.” New suburban dwellers often do not understand the practices involved with the everyday operation of a working farm. In this case, prospective land buyers are notified that they are potentially moving into a working agricultural area, complete with the sights, smells, and sounds that are associated with it. More protection and consideration may be given to properties in these districts concerning any zoning or regulatory issues. Farmers may be enabled to request public hearings when condemnation proceedings are initiated, for example. Also, a cohesive area with a shared identity can help improve visibility and community support for farming efforts.
RESIDENTIAL LAND USE RECOMMENDATIONS

For new neighborhood designs, Legacy recommends compact, pedestrian-oriented neighborhoods that contain a mixture of residential and commercial buildings, public spaces and amenities and offer a variety of transportation options. Additionally, Legacy specifically addresses the Union Cross area. It acknowledges the considerable potential for significant residential and commercial development in the area over the next decade because of its central location but counters that it has many characteristics worth protecting. Legacy concedes that while we might wish to preserve, or “freeze in time,” this rural southeastern portion of Forsyth County, it is not possible. Most of the area is currently zoned to allow one-acre lot residential development, a prescription for low-density sprawl; Legacy suggests an alternative called conservation development.

Conservation development is based on clustering residential and non-residential building development. Legacy suggests using rural conservation subdivision requirements, watershed regulations, the Forsyth County Farmland Preservation Program, transfer of development rights, and focused, local-serving commercial development at “village centers” to conserve much of the open space and rural character of the area while allowing for significant residential and non-residential development.

The Citizens’ Steering Committee debated greatly on the matter of future residential development in the planning area and agreed that future development should primarily take the form of rural conservation subdivisions or traditional neighborhood developments. Additionally, a modified form of rural conservation subdivision is proposed, as are conventional subdivisions, all of which will be described in more detail below.

RURAL CONSERVATION SUBDIVISIONS

There are numerous benefits to the developer, the local community and the environment in developing Rural Conservation Subdivisions. The developer can benefit by having an alternative form to current development and zoning patterns; community admiration for development of sensitive projects; potential for higher residential densities; less infrastructure costs (reduced street widths, shorter streets, compact development form, etc.); and a broader marketing potential. Residents and the community benefit by having natural features such as streams, wetlands, and stands of hardwoods preserved; historic, archeological and cultural features protected; viewsheds preserved; an opportunity for community interaction on greenways and open space gathering places; a network of passive and active recreation possibilities for the community; and the creation of pedestrian-friendly neighborhoods. Benefits to the environment include water quality protection via natural buffers; less site disturbance, allowing for more aquifer recharge areas; and maintaining wildlife management corridors. Efforts should be made to link the open space preserved in individual subdivisions to adjoining developments to create an interconnected network of open space.

There is a 50% open space recommendation for Rural Conservation Subdivisions. The density of development is not intense; rather, it is the same as the underlying zoning. This means that rural conservation subdivisions will develop with densities of 1 to 1.25 dwelling units per acre.

Rural Conservation Subdivisions are recommended for the area south of High Point and Watkins Ford Roads, and from Wallburg Road to NC 66. They are also recommended for the area east of NC 66, south of Bunker Hill Road and west of NC 66, south of Ogden School Road.

MODIFIED RURAL CONSERVATION SUBDIVISIONS (MRCS)

In those areas designated for Modified Rural Conservation Subdivision development, the standards are similar to those of a Rural Conservation Subdivision. The primary differences between the two developments are that in a standard Rural Conservation Subdivision there is a 50% open space requirement and the density of development is not intense; it is the same as the original underlying agricultural or residential zoning. In a Modified Rural Conservation Subdivision (MRCS) the density of development is more intense. The MRCS areas may develop with densities of up to three dwelling units per acre whereas Rural Conservation Subdivision areas may develop with densities of 1 to 1.25 dwelling units per acre. Otherwise, the concepts, guiding principles and benefits are the same for the two types of development. Modified Rural Conservation Subdivisions are recommended for the following...
areas: the northeastern most section of the study area bounded by NC 66, I-40, Bunker Hill-Sandy Ridge Road and the Guilford County line; in the central study area bounded by Union Cross, Hedgecock and High Point Roads and Teague Lane; and in the western study area, around the Union Cross Business Park, bounded by Wallburg and Gumtree Roads and the northern and western study limits (see Map 5).

TRADITIONAL NEIGHBORHOOD DEVELOPMENTS (TNDs)

In a Traditional Neighborhood Development (TND), residential and commercial buildings, public spaces and amenities, and institutional uses are mixed in a compact, pedestrian-oriented arrangement designed to lessen the need for a total reliance on the automobile and to generate a sense of community. In creating new neighborhoods using TND principles, three major components must be considered: residential development, neighborhood-serving commercial development, and the layout of the street system. What the TND model requires is a movement away from single-use zoning categories and towards an approach that blends various use categories in a compact form.

TNDs rely on arranging residential and nonresidential uses in a compact form so that they create a pedestrian-friendly, compatibly-scaled, mixed-use development. Such an arrangement provides many opportunities for walking and biking between and among uses, as well as accommodating the automobile. Further, the compact nature of development allows for the preservation and conservation of environmentally sensitive areas, such as wetlands, streams, lakes, hardwood forests, steep slopes, etc., and culturally significant areas/features, such as historic structures, farms and farmland, roadside meadows, interesting or unique site features, etc. The preserved areas serve as permanent, undevelopable open space and serve as a "trade-off" to the higher densities and intensities of development in other locations. When concentrated along and near key transportation corridors, sufficient densities exist to allow the integration of successful public transportation into the area, further reducing dependence on single-occupancy vehicles. TNDs are recommended for the northwestern and southwestern quadrant of the interchange with I-40 and Union Cross Road; for the area south of Glenn High School; and for the area directly east of Glenn High School, across Union Cross Road (see Map 5).

CONVENTIONAL SUBDIVISIONS

Conventional subdivisions require adherence to the underlying zoning district regarding density, size and setbacks. The lots are required to be accessed by a public street. All streets built within a conventional subdivision must meet public street standards, often with curb and gutter. Currently there are no requirements for sidewalks or open space in a conventional subdivision, nor are there any requirements to preserve trees, streams or any other natural features other than floodways.

While not recommended for a large portion of the planning area, conventional subdivisions are recommended in the Union Cross/Southeast Forsyth County Area Plan for several reasons. Much of the property located east of NC 66 is developed with conventional development patterns. With installation of sewer unlikely, continued residential development in the same, consistent lotting pattern is recommended. While sewer may become available to residential areas around Old Salem Road, Glenn Hi Road, High Point Road in the vicinity of Temple School Road and North Main Street, the character of the existing residential development (fragmented, conventional pattern) suggests continued conventional subdivision development (see Map 5).

GENERAL RECOMMENDATIONS

The following are the general and specific recommendations for Residential Development:

• Encourage land use that focuses development in planned locations, conserves farmland and natural areas, helps retain the rural character of the area, and provides mixed-use communities that incorporate "Smart Growth" principles, wherever possible.
• Encourage development at a pedestrian scale.
• Encourage small-scale, neighborhood-oriented commercial development, where appropriate.
• Encourage and provide for mixed-use development with a variety of housing types, densities, nonresidential uses, open spaces and recreational amenities.

SPECIFIC RECOMMENDATIONS

1. Recommend Rural Conservation Subdivisions as indicated on the Future Land Use Map (see Map 5).
2. Recommend Modified Rural Conservation subdivisions as indicated on the Future Land Use Map (see Map 5).
3. Encourage the development of TND projects in and around all Activity Centers.
4. Develop design criteria for a Rural Conservation subdivision ordinance that will require the conservation of significant environmental, cultural and aesthetic features of the rural landscape. Ensure that the new standards have incentives for developers and property owners.

5. Seek special legislation to allow for the Transfer of Development Rights (TDR) within the county.

**Environmental Recommendations**

*Legacy* proposes the preservation and enhancement of our environmental resources. It recommends the protection of watersheds, wetlands and streams in order to reduce pollution runoff, soil erosion and flooding, and to provide clean, high-quality water to meet the domestic, economic and recreational needs of the community.

Preservation of important natural resources and the need for development have all too often been seen as separate goals that cannot be accomplished in tandem. More often than not, environmental protection has been compromised in favor of development and its associated economic benefits. Fortunately, we are beginning to realize that environmental protection and development can be balanced in order to achieve the desired goals of both: a healthy, quality environment and the added tax base and associated economic benefits of increased development. Such a balanced approach is known as "sustainable development." The Citizens’ Steering Committee (CSC) was insistent that sensitive and critical features of the natural environment within the planning area be preserved or enhanced.

**General Recommendations**

- Manage development pressures in a way to preserve natural resources, forested areas, wildlife habitats and agricultural land.
- Preserve and maintain water quality and water resources by protecting natural stream corridors and watersheds.
- Keep industries and commercial developments clustered around interchanges and/or planned business areas in order to encourage compact patterns of development, reduce strip development, and avoid construction in rural areas far from public services.
- Protect high-quality natural areas and sites having rare plants and animals.
- Promote environmentally sensitive development that respects natural areas and enhances the quality of our built environment.
- Mitigate the adverse effects of noise, light and air pollution.

**Specific Recommendations**

- Recommend Rural Conservation Subdivisions, Modified Rural Conservation Subdivisions or Traditional Neighborhood Developments in lieu of Conventional Subdivisions in most circumstances. The most intense development should be concentrated near identified Activity Centers, preserving large portions of the remaining areas from development pressures through various conservation techniques outlined in the individual design guidelines.
- Approve only rezonings that are compatible with the area plan’s recommended land use plan.
- Develop a more accurate and extensive countywide stream/wetland network on the City-County Planning Board’s GIS system to assist in general identification of perennial and intermittent streams and amend the *Unified Development Ordinances* (UDO) to ensure protection of these natural environments. Our existing stream inventory should be replaced as money permits. Further, it is recommended that grants be pursued to assist in the funding of this stream identification project(s).
- Preserve natural drainage features (including associated features such as waterfalls) and maintain water quality by requiring riparian buffers to the edge of the floodway fringe for FEMA regulated streams and 50-foot riparian buffers along all other identified streams. The 50-foot measurement is on each side of the stream, as measured from the top of the bank. In no case shall the riparian buffer be less than 50-feet in width. (For FEMA streams, the riparian buffer should either be the regulated floodway fringe or 50 feet, whichever is greater.)
- Apply the 30-/20-foot two-zone buffer
approach with different permitted uses in each zone for the non-FEMA streams. The two-zone buffer approach works as follows:

- 30-foot area on both sides of the stream, as measured from the top of the bank is Zone 1, which only allows limited removal of selected vegetation. The 20-foot area located on the outside of the 30-foot area is known as Zone 2, which allows selected timbering and tree removal (see UDO, Section 4-7 for more information).

- Develop new digital GIS layers that represent known jurisdictional wetlands. Use this information, along with the new stream layer and all existing layers, including steep slopes, floodway and floodway fringe areas, other identified stream buffers, lakes/ponds and other identified significant features (rock outcroppings, waterfalls, forested areas, farms, etc.) to create a Natural Constraints Map. Amend the UDO to require developers to identify jurisdictional waters and respect unique landscape environments in these areas when formulating development plans. Such a system would ensure a coordinated approach to environmental protection.

- Approve only Special Intense Development Allocations (SIDAs) for the City of Winston-Salem or Forsyth County jurisdictional watershed areas or Special Nonresidential Intensity Allocations (SNIA) for the Town of Kernersville jurisdictional watershed areas in the various Activity Centers within the study area to promote increased growth and economic development in appropriate areas. Areas falling outside of the Activity Centers should not receive SIDA or SNIA approvals.

- Minimize built-upon surface area by using a multi-tiered approach whereby developers must either adhere to maximum impervious surface limits for conventional developments or provide a certain amount of open space for conservation or traditional neighborhood types of developments. Units of government (including local governments, DOT, the City-County Utility Commission, etc.) should strive to minimize built-upon surface area for all projects, up to requiring that additional property be set aside for permanent conservation/open space.

- Employ the use of Best Management Practices (BMPs) to ensure that the quality of post-development stormwater runoff meets or exceeds the quality/quantity of pre-development stormwater runoff, per either North Carolina Department of Water Quality standards or other standards.

- Analyze existing watershed regulations and investigate amending the UDO to further restrict development within water supply watersheds.

- Enforce the use of proper erosion control techniques, stream preservation and other important environmental considerations during the construction/development process.

- Require developers or contractors of all developments containing areas of no disturbance (floodway/floodway fringe areas, riparian buffers, preserved open space, etc.) to erect and maintain temporary protection fencing around the perimeter of the area to be preserved. Such fencing should be designed to attract the attention of workers and should be appropriately signed to alert everyone that they are not to enter such areas with heavy equipment and tools. Notes should be required on final plats and development plans indicating that the no disturbance areas are to remain undisturbed.

- Hold an educational workshop hosted by the Piedmont Land Conservancy for landowners demonstrating the importance of inventorying important natural features on the properties. Such a program should demonstrate ways that development and conservation efforts complement one another.

- Review the existing noise ordinance and determine if it provides adequate protection from noise and revise countywide, as appropriate. Please note that agricultural noise is not being targeted with such a study. The primary purpose of such a recommendation is to ensure that existing and proposed commercial and industrial uses do not adversely impact surrounding residential properties.

- Consider adoption of a countywide, comprehensive lighting standards ordinance.

- Develop an educational and incentive-based program for individual citizens and businesses to participate in to improve air quality.

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**Rural Character/Quality of Life Recommendations**

In order to achieve a more compact and livable community, Legacy supports managing growth and development to reduce sprawl, create a more compact and balanced urban development pattern and preserve open space and rural character.
What is rural character? It is a concept that is easy to recognize when you see it, but quite difficult to define on paper. Rural character means a way of life, a sense of place, and a strongly recognizable landscape for many residents of the planning area. Many of the visual impressions of the area's rural character are experienced from the winding, two-lane roads that cross the undulating fields and farms, groves of trees, and commercial crossroads. Often most impressive are the swaths of green, undeveloped land that line the roads and provide frequent scenic vistas of distant farms, forests and homes. Where the immediate roadside property is developed, typically with subdivided lots with single-family homes, there is an ever-growing sense of the loss of "ruralness." The protection of the area's scenic and rural qualities are strongly related to the conservation of open green space, historic structures, and landscape elements.

The area is already experiencing strong development pressures. In order to balance the demands of increasing development with the special character and sensitive environmental constraints of this historically rural agricultural area, policies and development strategies must be adopted. Further, a strong community commitment is necessary in order to retain the sense of the rural, historic landscape of the planning area for the future.

GENERAL RECOMMENDATIONS

- Maintain rural character and quality of life by carefully managing the location, quantity, and quality of growth and development.
- Identify corridors that significantly contribute to rural character.
- Maintain a rural appearance through vegetative buffers and/or cluster developments.
- Discourage clear-cutting practices in residential developments.
- Plan residential and commercial developments in a way that will allow sustained agricultural use and the retention of woodland and open space areas and that will be appropriate to the current rural character of the planning area.

SPECIFIC RECOMMENDATIONS

- City and County staff, with inclusive citizen participation, should complete a survey of the significant environmental, scenic, natural, cultural and recreational resources found in the planning area.
- City and County staff should develop a comprehensive plan for a network of open spaces and wildlife corridors in the planning area, based on information gathered and priorities established by a survey of environmental, cultural and aesthetic resources. This Community Conservation Plan would be a guide for locating and designing new development in the planning area.
- Adopt conservation subdivision standards and design guidelines, with attractive incentives for developers and property owners, to preserve significant environmental, cultural and aesthetic features of the rural landscape. Natural features of a site should dictate the form of development.
- Develop a residential tree-save ordinance that would require the preservation of a certain percentage of the existing tree canopy in areas of new development. Such an ordinance would discourage clear-cutting practices in new residential developments. This process would involve cooperative efforts between the City, County, Town of Kernersville, local arborists, development community, institutions, and area residents.
- Adopt scenic corridor protection tools to maintain the rural appearance of the area, such as a Scenic Corridor Overlay Zoning District and/or State or federally designated Scenic Byway program. (Any systematic retention of open space along roadways should support and further the goals outlined in the current Greenway Plan for Winston-Salem and Forsyth County.) A scenic corridor protection program will require the support and cooperation of local residents.
- Work with the Piedmont Land Conservancy and interested citizens to educate area residents about the benefits of land conservation tools, such as conservation easements that permanently restrict future land use activities such as development or timbering. Educate landowners about how these methods can support continued land use for agriculture, wildlife propagation, game lands, or recreation.
- Revise the existing sign ordinance to reduce the size and scale of on-premise commercial signs within the planning area. This action will reduce visual clutter and provide an attractive commercial environment for retailers.
- Encourage co-location on existing cell towers within the planning area in order to reduce visual impacts on the rural landscape. When approving new towers, encourage monopole
A newly developed subdivision off Glenn Hi Road. Sidewalks, street trees, and pedestrian-scale lighting provide a neighborhood feel.

Designs that are structurally capable of supporting additional antennae. Emergency towers, as needed, will not be restricted from locating within the planning area.

- Encourage the use of common accesses for individual single-family developments located off the area's roadways, where appropriate, in order to minimize the number of curb cuts and to retain the sense of open space along the road. Discourage multiple curb cuts on major roads.
- Revise subdivision regulations so that curb and gutter requirements in new developments are flexible according to the existing character of the area.
- Develop Activity Centers in a compact manner to maintain the boundaries of the more intensively developed areas and to protect the character of surrounding rural areas.
- Establish design standards for site design, building construction, exterior treatments, and signage within identified Metro Activity Centers, Community Activity Centers and Neighborhood Activity Centers to maintain a sense of place.
- Establish community gateways at Activity Centers that provide opportunities for coordinated signage, community bulletin boards and plantings. These areas could be sponsored and maintained by neighborhood organizations,
Most existing residential development is single-family on public water and septic systems.

garden clubs, or civic clubs, in cooperation with the City of Winston-Salem, Forsyth County, the Town of Kernersville and area institutions as public improvements are made.
- Work to limit the visual intrusion of vehicles at the sites of proposed transit stations/Park and Ride lots along US 311 and Interstate 40 by encouraging the screening of vehicles with landscaping and appropriate site selection. Parking lots should be located in areas that will not intrude on existing areas of rural or historic character. Preferably, Park and Ride lots should be carefully incorporated into existing areas of commercial development.
- City-County Planning staff and area citizens should work together to ensure that attractive visual and noise screening elements are used along area highways, where applicable.
- Develop and adopt a “Dark Sky” ordinance that addresses intrusive lighting from residential, commercial and industrial uses.
- Maintain continued use of land for hunting and target shooting in the planning area by encouraging cooperative relationships between local residents, private property owners, utility companies, and the NC Wildlife Resources Commission.

**HISTORIC PRESERVATION RECOMMENDATIONS**

*Legacy* recognizes that historic preservation can be a growth strategy for Forsyth County. Preserved buildings and neighborhoods add to our community's character and image and have an impact on our ability to attract new residents, outside investments and tourists. Specifically, *Legacy* recommends the identification, protection and promotion of historic resources as an integral component of quality growth in Forsyth County.

**GENERAL RECOMMENDATIONS**
- Preserve historic structures.
- Where possible, incorporate structures into the design of new developments.
- Update the inventory of historic structures within the planning area.
- Encourage the adaptive reuse of historic structures.
SPECIFIC RECOMMENDATIONS

• Promote the preservation and adaptive reuse of historic resources. Of particular significance in the area are farming complexes and agriculturally significant buildings and landscapes.
• Update the County's inventory of historic and archaeological resources within the planning area. Identify individual resources or groups of resources that may be eligible for listing on the National Register of Historic Places (NRHP), either as historic sites or landscapes. Should studies determine eligibility for all or part of those areas, pursue funding and nomination for NRHP listing.
• Educate the public about Forsyth County's rich agricultural history and its varied historic resources.
• Educate property owners about the benefits of the National Register Program and other incentive programs that can encourage the preservation of historic areas and properties. Such incentive programs should include local property tax deferments for approved rehabilitations and special interest programs for the purchase and restoration of historic properties.
• Encourage the preservation of the cultural landscape, where possible, such as the pattern of rolling fields, open pasture, tree lines, forests, and farmsteads with scattered outbuildings. Existing farm roads should be incorporated into new developments. New roads should follow existing contours. Stone rows and tree lines should be preserved, where possible.
• Incorporate historic structures into the design of new developments, where possible, rather than resorting to relocation or demolition. Use conservation subdivision regulations as a tool to preserve significant historic structures or landscapes. Careful planning can successfully preserve historic structures, while also providing for new development.
• Identify opportunities for the reuse of historic commercial buildings for small business use. Where applicable, incorporate existing historic buildings into the design of Activity Centers.
• Work to preserve the historic character of residential properties when converting them to commercial uses. Design guidelines can help ensure that these resources retain their historic character while also allowing for new uses.
• Consider the development of a Forsyth County Historic Marker Program to recognize significant historic sites within the planning area.

Where applicable, apply for recognition for historic sites through the City of Winston-Salem's Historic Marker Program.
• Work with the Historic Resources Commission to designate Local Landmark Property designations in the area.

ECONOMIC DEVELOPMENT RECOMMENDATIONS

Economic development can be defined as the creation and/or retention of jobs or related activities that improve or enhance the economic welfare of the inhabitants of a community. *Legacy’s* goal for economic development is to attract environmentally-sensitive new businesses and expand existing large and small businesses to provide a broad range of employment opportunities and a high quality of life for people living and working in Forsyth County.

The strategic location of the Union Cross/Southeastern Forsyth County planning area between Winston-Salem, Greensboro and High Point, its relatively flat topography, and excellent highway access make the area a prime location for light manufacturing, office uses, warehousing/distribution and research facilities. While *Legacy* recommends that economic development be concentrated in urbanized areas with established infrastructure, the plan also recognizes the need to identify large greenfield sites in future growth areas, such as southeastern Forsyth County, for business park development.

The Union Cross Business Park is located in the planning area and the Citizens’ Steering Committee acknowledged that several large quarries will continue to operate well into the future. In addition, the Committee has designated four additional sites for business park development totaling approximately 1,500 acres. By concentrating business parks at a limited number of locations with good highway access, the potential traffic impacts of these developments are reduced. Another recommended component of economic development identified by the Committee was agribusiness. Making agriculture more profitable by increasing the value of agricultural commodities can lessen the likelihood that urban uses will encroach upon the historically rural communities. Additionally, by promoting agriculture, the rural character and the community’s quality of life can be balanced against the changes brought on by growth and development.
Finally, the plan identifies several Activity Centers where commercial, office and retail establishments should be concentrated. These Activity Centers are mixed-use developments designed to serve various sized neighborhoods in a compact manner. More details on Activity Centers will follow later in the plan.

**GENERAL RECOMMENDATIONS**

- Support balanced, compatible economic development by the private and public sector.
- Encourage high-quality, high-paying, “clean and green” businesses and industries to locate or expand in the planning area.
- Promote and encourage agribusiness.
- Focus industries and commercial development in planned business areas and at highway interchanges.
- Encourage environmentally-sensitive development of business areas that retain the rural character of the area.
- Rezonings for business park development should be compatible with the area plan's recommended land use plan.

**SPECIFIC RECOMMENDATIONS**

- Support the creation of business parks for light manufacturing, office uses, and warehousing/distribution and research facilities at four locations identified on the Future Land Use Map (see Map 5). These locations are:
  1. Caleb's Creek site at the southeastern quadrant of the I-40/Union Cross Road Interchange adjacent to the Caleb’s Creek development;
  2. High Point site in the northeast quadrant of the US 311/NC 66 interchange;
  3. Temple School Road site west of Union Cross Road and south of Glenn Hi Road; and
  4. City of Kernersville site east of Teague Lane and south of Old Salem Road.
- Develop design guidelines to ensure that new business parks in the Union Cross/Southeast Forsyth County Planning Area are high-quality developments that support job creation and economic expansion, and at the same time, respect the rural character and natural environmental features of the area. To accomplish these objectives, business parks should be master-planned and developed in a campus-like setting and consist of attractive buildings and parking areas, and significant natural open space and landscaped buffers that screen the development from public streets and adjacent development (see Appendix B).
- Encourage the development of tourism in the planning area through the designation of scenic byways, the promotion of agricultural-based small businesses, and the retention of historic farmsteads as sites for educational “Farm Days” that could market the area's products and services. Tourist-related efforts could include cooperative sales of organic and value-added products at corner stores, and the development of educational “farm experience” opportunities.
- Allow for the expansion of existing quarries within property currently owned by the mining companies (see Map 5) but discourage expansion beyond those limits and any requests for new quarries.

By concentrating the business/office/industrial park site uses at limited locations and by concentrating the development to these areas along major thoroughfares, convenient access and disbursement of traffic is achieved. Additionally, by promoting agriculture, the rural character and the community’s quality of life can be balanced against the changes brought on by growth and development. To further encourage economic development opportunities in the planning area, several Activity Centers have been identified. By concentrating commercial, office, and retail establishments at planned locations, unnecessary construction in rural areas and strip development can be avoided. While they are an element of economic development, Activity Centers are addressed separately because of the need to further define their purpose and characteristics.
Vulcan corporation operates a crushed-stone quarry at US 311 and NC 66 in the southeastern portion of the study area.
Legacy proposes to accomplish more compact development in the county in part by concentrating and intensifying development in and around designated Metro Activity Centers (MACs). A MAC is a concentrated center of activity that consists of residential, commercial and employment uses and is intended to serve as a hub for the surrounding less intensely developed neighborhoods. On a smaller scale, there are also Neighborhood and Community Activity Centers (NACs and CACs).

There is a MAC located in the northeastern quadrant of the planning area that was designated in Legacy as the Kernersville South Metro Activity Center. The Citizens’ Steering Committee has also designated two CACs and two NACs as part of the planning process (see Map 5).

PURPOSE OF AN ACTIVITY CENTER

Activity Centers are compact, mixed-use developments that include shopping, services, offices, higher-density housing and civic uses. The size and land uses in Activity Centers can be scaled to serve a single neighborhood, a group of neighborhoods or a region of the county. Their design can meet a number of the environmental and "Smart Growth" goals embraced by the Union Cross/Southeast Forsyth County Area Plan.

The compact, pedestrian-friendly design of Activity Centers is an alternative to current patterns of suburban commercial development that stretches along thoroughfares and is commonly called "strip commercial development." By directing compact commercial and higher-density residential development to certain appropriate locations in the Union Cross/Southeast Forsyth County planning area, better use is made of land resources and pressure is reduced for development of farmland, open space and natural areas.

The term "village or town center" best describes the preferred pattern of development in Activity Centers and distinguishes them from current automobile-oriented suburban and rural development. The compact size of these mixed-use developments is based on the one-quarter mile distance a person can comfortably walk in five (5) minutes. Coordinated public spaces – streets, sidewalks, plazas and open spaces – where people can conduct their business and meet freely with others is a key feature that clearly distinguishes Activity Centers from their suburban and rural counterparts. Buildings have an overlapping pattern of use and are pulled close to the street to enclose these public spaces. The design guidelines in Appendix B are intended to identify principles and good practices for creating these walkable, mixed-use developments in the planning area.

CHARACTERISTICS OF ACTIVITY CENTERS

Activity Centers can be classified into three types based on the market area they serve: neighborhood, community or regional. The physical size of these centers, appropriate land uses and the specific design guidelines required to create a sense of place at these Activity Centers are all developed based on this three level classification.

Neighborhood Activity Centers (NACs)

Neighborhood Activity Centers (NACs) are small-scale, commercial developments whose primary market area is a single neighborhood of 600 to 1,500 dwellings. They are designed to serve the daily shopping and service needs of the neighborhood as well as to provide a gathering place for neighborhood social life. The Union Cross/Southeast Forsyth County Area Plan proposes two NACs: one in the Caleb’s Creek development and one at the intersection of Union Cross and High Point Roads (see Map 5).

These pedestrian-oriented developments are about one-eighth mile in diameter, representing an area of approximately eight acres, an easy two- to three-minute walk from edge to edge.

A number of commercial uses that serve the daily shopping needs of nearby residents are considered appropriate for NACs including a grocery store, pharmacy, video rental, dry cleaners, bakery, specialty food store, cafe, sit-down restaurant, service station, medical offices, insurance offices, and day care. Public uses including churches, synagogues and branch libraries are encouraged.
In a NAC, a village scale is emphasized by including smaller-scale buildings, smaller roads, and by orienting portions of development to surrounding side streets and neighborhoods.

The area at the periphery of a NAC is suitable for moderate-density housing such as duplexes, town homes and low-rise apartments that transition to the density of the surrounding neighborhood. Residences and offices over shops in the central area are encouraged.

**Community Activity Centers (CACs)**

Community Activity Centers (CACs) are scaled and designed to serve a primary market of surrounding neighborhoods consisting of 2,000 to 7,000 dwellings. They provide daily and weekly shopping needs and services, recreation, employment, and institutional "second tier" facilities to this market as well as providing a gathering place for the community. The UnionCross/Southeast Forsyth County Area Plan proposes two CACs; one located at the Union Cross Shopping Center and one located at the intersection with NC 66 and High Point Road (see Map 5).

These pedestrian-oriented developments are about one-quarter mile in diameter, representing an area of approximately 30 acres, a five-minute walk from edge to edge. Their center or core area is most appropriate for the more intense uses suggested for these mixed-use developments.

In addition to the uses suggested for NACs, a number of additional uses are considered appropriate for the market area of CACs. They include large supermarkets, large drugstores, hotels, restaurants, movie theaters, entertainment spots, medium-sized offices, schools, large day-care centers, and large churches.

In a CAC, there is larger-scaled development with more activities. The majority of development is oriented to arterials with some development oriented to side streets and surrounding neighborhoods. Building heights are limited to about four stories in the core area.

The area at the periphery of a CAC is suitable for higher-density housing such as duplexes, town homes and apartments that transition to the density of the surrounding neighborhood. Residences and offices over shops in the central area are encouraged.

**Metro Activity Centers (MACs)**

Metro Activity Centers (MACs) are the largest and most intense of these mixed-use commercial areas. Land uses, street configurations and design features are those of a "town center."

Locations for nine MACs as well as suggested land uses and general design guidelines were identified in Legacy. Each is intended to serve a region of the county and a market area of at least 40,000 people. Legacy recommends that a Metro Activity Center (MAC) called the Kernersville South Metro Activity Center be located at the intersection of NC 66 and Interstate 40 in the Union Cross/Southeast Forsyth County planning area (see Map 5).

MACs are one mile in diameter representing an area of approximately 500 acres, a 10-minute walk from the edge to the center. MACs have the largest scale of development with a high density of major destinations and urban activity. Prominent businesses are focal points and are integrated into the overall development. Parking structures are used to reduce the area devoted to surface parking and increase development density. Medium- and high-density commercial and residential buildings are limited to about six stories.

MACs, because of their size, can be segmented into a core area and a support area. The core area has a mix of high-intensity uses including super-store retail, high-rise office, entertainment venues and institutional uses as well as high-density residential. The support area consists primarily of medium- and high-density residential uses transitioning to lower-density uses at its edge. Plazas and squares, as well
as natural open spaces, provide gathering places for the public. Mass transit facilities are integrated into the design. The consistent use of compatible urban design and architectural elements helps to relate individual structures resulting in a coherent overall development pattern and streetscape.

MACs are not intended to provide space for traditional manufacturing and warehousing. These industrial uses, which typically consist of sprawling one-story structures, require outside storage and rely on heavy truck transport to serve them and are not compatible with the pedestrian and town center character of MACs. Design guidelines have been developed in order to address the mix of uses, densities, street design and other contributing elements of Activity Centers. These guidelines can be found in Appendix C.

An existing Neighborhood Activity Center at High Point and Union Cross Roads. A tire shop, gas station/convenience store and church serve the needs of the local community.
Kernersville South Metro Activity Center Site Analysis

Legacy identified a Metro Activity Center (MAC) called the Kernersville South Metro Activity Center at the intersection of NC 66 and Interstate 40 in the Union Cross/Southeast Forsyth County planning area. The adopted NC 66/Old Salem Road Area Metro Activity Center Guidelines documented further work to identify the most desirable site near that interchange for the Activity Center. The southwest quadrant of the interchange was deemed to have the most potential and existing features in the area were used to identify a large tract of land totaling about 450 acres that defined the extent and boundaries of the Activity Center.

As part of the work preparing the Union Cross/Southeast Forsyth County Area Plan, some refinement of the Activity Center boundaries was done and a site analysis was undertaken to identify environmental constraints at the site and those areas within the Activity Center boundaries that would be most suitable for development. This information will be useful to the people developing, reviewing and approving future development in the Activity Center.

Map 6 shows that adjustments were made to the one-quarter mile core ring and the parcels included in the Activity Center. The core area of the Activity Center now touches NC 66 and is located entirely to the west of that major thoroughfare. NC 66 represents a major barrier to pedestrian circulation within the highly walkable Activity Center core.

Some large, vacant tracts of land have been added at the south extremity of the support area within the half-mile support ring beyond what was shown in the NC 66/Old Salem Road Area Metro Activity Center Guidelines. Total acreage of the Activity Center is now 542 acres.

The lavender tinted parcels in Map 6 indicate the extent and boundaries of the land to be included in the Activity Center. The ideal Activity Center core (one-half mile across) is shown as a ring for reference.

For the environmental constraints analysis, the location and extent of streams, floodplains and slopes greater than fifteen percent were mapped (see Map 7). A cross-country gas transmission line cuts across the Activity Center and represents a constraint to development.

Map 6. Kernersville South Metro Activity Center Boundaries
Extent of core and support area for the Kernersville South Metro Activity Center shown as circles. Proposed boundaries based on existing parcels are shown as lavender tinted areas.
The floodplain and steep slopes provide buffers from surrounding development especially along the main stem of Abbotts Creek along the western edge of the Activity Center site. Several branches of Abbotts Creek that extend east into the core of the Activity Center could serve as an open space amenity within the more intensely developed core area. Development cannot take place over the gas transmission line running north central to southwest through the site but it can serve as part of a walking trail system within the Activity Center. Subtracting out the environmental constraints still leaves a number of large, relatively flat development sites within the boundaries of the Kernersville South Activity Center.

**GENERAL RECOMMENDATIONS**

- Keep industries and commercial development clustered around interchanges and/or planned business areas in order to encourage compact patterns of development, reduce strip development, and avoid construction in rural areas far from public services.
- Encourage land use patterns that focus development in planned locations, conserve farmland and natural areas, help retain the rural character of the area, and provide mixed-use communities that incorporate "Smart Growth" principles, wherever possible.
- Concentrate development at existing areas; build on existing nodes of development.
- Cluster commercial development at designated intersections.
- Promote and follow “Smart Growth” principles when planning and approving developments.
- Encourage developments at a pedestrian scale.
- Encourage and provide for mixed-use developments with a variety of housing types, densities, non-residential uses, open spaces, and recreational amenities.
- Encourage small-scale, neighborhood-oriented commercial development, where appropriate.

**SPECIFIC RECOMMENDATIONS**

- Support the designated Metro Activity Center at I-40 and NC 66 as a location for high-intensity, mixed-use development.
- Support the designation of two Community Activity Centers, one at the Union Cross Shopping Center, and the second, at the intersection of NC 66 and High Point Road.
- Support the designation of two Neighborhood Activity Centers, one in the Caleb’s Creek Community, and the second, in the vicinity of Union Cross and High Point Roads.
• Support commercial rezoning requests only at designated Activity Centers to discourage urban sprawl from encroaching into the rural community.
• Support medium- and high-density residential developments only at designated Activity Centers to discourage urban sprawl from encroaching into the rural community.

**COMMUNITY FACILITIES RECOMMENDATIONS**

Both public and private community facilities such as schools, parks, libraries, medical offices, and daycare providers should be easily accessible to all segments of the population. *Legacy* promotes the sharing of institutional facilities as a way to meet various needs of a community. An important recommendation from *Legacy* for Suburban Neighborhoods is the creation of a central gathering space in all communities to serve as the focus of civic and community life. *Legacy* also recognizes the need to acquire open space for the primary purpose of resource protection. Specifically, *Legacy* suggests encouraging landowners to donate identified land for the open space system using conservation easements and other voluntary means.

The Citizens’ Steering Committee (CSC) defined open space as natural landscapes that remain relatively undisturbed. Open space can range from pristine preserves of high ecological significance to greenways. These areas may be publicly or privately owned. They may be preserved and protected by environmental regulations, purchase, conservation easements, or dedication or donation to a public agency or land trust. Protected open space serves many purposes including recreation; protection of our water supply; protection of natural resources such as wildlife, plant communities and landscapes; buffering neighborhoods; and providing visual relief and contrast from the built environment. The aim of open space protection is to preserve a community's most important natural resources by steering growth away from them.

The CSC recognized that the area has the potential for rapid growth. However, as there is still insufficient infrastructure in the area and a definitive rural character to its surroundings, the CSC was quite specific in stating while certain community facilities were necessary and welcome, they should be located in areas that would not encourage further sprawl into the area.

**GENERAL RECOMMENDATIONS**

• Provide high-quality and well-maintained public services and facilities in a timely manner only in areas designated for future growth in the area plan.
• Locate schools, parks, public open space, etc., only in identified development areas.
• Share community facilities, wherever possible, so as to achieve economies of scale.
• Develop community facilities in ways that are appropriate in scale and character to the rural character and lifestyle of the area.
• Develop neighborhood-oriented parks, open spaces, and greenways to adequately serve the existing and future population in the planning area.

**SPECIFIC RECOMMENDATIONS**

**Activity Centers**

• Locate community facilities at Metro, Community, and Neighborhood Activity Centers, where appropriate.
• Design facilities to reflect the character of the area in which they are located.

**Schools**

• Collaborate with the Winston-Salem/Forsyth County School System on the implementation of plans for the area, including the need to build a new elementary school in the next five years with bond funding and the need to expand the existing Glenn High School.
• Review these plans as development occurs in the area over the next 10-15 years to ensure that school facilities are keeping pace with the school-aged population.

**Libraries**

• The community should work with the Forsyth County Library Board to provide a branch library for the area; consideration should be given to locating a branch library in the proposed Metro Activity Center.

**Public Safety Facilities**

• Ensure that fire protection services keep pace with development in the area.
• Ensure that police services keep pace with development in the area.

**Parks and Recreational Facilities**

• Establish five parks with links to the greenway system, where feasible. These parks should also include natural areas and water for wildlife. Specifically, these parks should be located:
1. Adjacent to Glenn High School, along Glenn Hi Road;
2. In the southern portion of Caleb's Creek, along Watkins Ford Road;
3. At the confluence of Abbotts Creek and Idlewild Road Branch, south of US 311 and north of Bear Run Lane;
4. Along Abbotts Creek, north of Ogden School Road; and
5. Along Ogden School Court, south of Ogden School Road.

- Complete surveys to determine community preferences for types of facilities and programs.
- Complete master plans for proposed parks in consultation with residents.
- Ensure that the recreation needs of neighborhoods are considered when collaborating with the school system on new school planning in the area.

**Greenways**

- Construct a greenway trail, in phases, along Abbotts Creek after completing a feasibility study to determine the most appropriate alignment.
- Complete a feasibility study of a proposed regional trail between southeast Forsyth County and High Point along the West Fork of the Deep River.
- Obtain minimum 40-foot easements along Abbotts Creek and the West Fork of the Deep River as part of the development process.
- Explore the feasibility of a greenway trail along the existing gas utility easement.
- Connect the proposed Metro Activity Center at I-40 and NC 66 to proposed greenway trails.
- Link proposed greenway trails to existing and proposed parks, where feasible.

**Open Space**

- Designate the floodplains of Abbotts Creek and the West Fork of the Deep River as the backbone of the area's open space system.
- Obtain conservation easements on sites that are to be developed along these creeks as part of the rezoning and subdivision process.
- Encourage rural conservation subdivisions in areas located outside of Activity Centers, which are to be subdivided.
- Inventory scenic areas that could be included in the open space system.
- Inventory archaeological and rural historic sites that could be included in the open space system.

- Identify priorities for land or easement acquisition for parks, greenways and open space.
- Cooperate with nonprofit, corporate or other private organizations in preserving open space.
- Provide information to landowners and developers on the benefits and opportunities of land preservation, designing for parks and open space, available tax benefits and other incentives to preserve natural areas.
- Establish squares or plazas within proposed Activity Centers.

**Funding Community Facilities**

- Pursue public and private sources to fund community facilities.
- All jurisdictions should consider the feasibility of fees to finance facilities for new developments.

**Transportation Recommendations**

*Legacy* calls for a balanced, sustainable transportation network that provides choices for travel needs. Street networks should be developed in a manner that is consistent with the land use plan and that promotes connectivity in communities. A more compact pattern of growth, as outlined in the land use recommendations, will allow public transportation to be introduced into the community to provide an alternative to the automobile. Developing walkable neighborhoods and creating a network of bike-ways, sidewalks, and greenways will provide for needed transportation choices for all segments of the population.

**General Recommendations**

- Develop a transportation system that provides a safe and efficient road network, encourages alternatives to the automobile, minimizes impacts on neighborhoods, and promotes good air quality.
- Emphasize pedestrian-oriented development to create a linked system of greenways, bicycle lanes and sidewalks that connect neighborhoods, parks, schools, offices, commercial areas and other public spaces.
- Establish public transportation nodes near cluster developments.
- Promote road safety and encourage increased enforcement of traffic laws.
- Ensure that ongoing traffic analyses are being conducted so that new roads and road improvements are being designed to handle anticipated growth in the planning area.
SPECIFIC RECOMMENDATIONS

Roads
- Support the final determination of the alignment and construction of the Northern Beltway Eastern Extension. Encourage NCDOT to keep residents of the area informed of the status and the likely effects of the project.
- Support construction of the Glenn Hi Road Extension from Ogden School Road west to the intersection with Union Cross Road, through the new Caleb's Creek development.
- Support construction of a modified Ogden School Road Extension from Ogden School Road east to Bunker Hill/Sandy Ridge Road in Guilford County.
- Support construction of the Burguss Road Extension from existing NC 66 east to Tanglebrook Road in Guilford County.
- Investigate through NCDOT, Kernersville DOT and WSDOT, the possibility of designated truck routes on roads throughout the planning area.

Pedestrian/Bike
- Create a network of sidewalks and greenways for the planning area to provide pedestrians, runners and bicyclists with good access to neighborhoods, Activity Centers, recreation facilities and other community facilities.
  (Note: Greenways are also discussed in the Community Facilities section.)

Transit
- Provide and encourage the use of Park and Ride lots.
- Follow the progress of the PART analysis studying the feasibility of light rail through the planning area and support the location of a light rail stop.
- Encourage the MAC site as a node for public transportation.

Review recommended transportation improvements found in Appendix D. Add appropriate projects to the 2005 Multimedia Long Range Transportation Plan and consider requiring other necessary improvements as part of the development process.

Local residents can enjoy many amenities at the County's Union Cross Park. Basketball and tennis courts, as well as baseball facilities and a playground, are available.
## Implementation Schedule

### On-Going Activities

<table>
<thead>
<tr>
<th>ACTION/PROJECT</th>
<th>RESPONSIBLE AGENCY †</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agriculture</strong></td>
<td></td>
</tr>
<tr>
<td>Encourage the donation of agricultural conservation easements and promote the County's present use taxation program (page 19).</td>
<td>CNR; CEO</td>
</tr>
<tr>
<td>Explore educational farm experience opportunities and the profitability of transitioning crops (page 20).</td>
<td>CNR; CEO</td>
</tr>
<tr>
<td>Collaborate with the American Farmland Trust (page 20).</td>
<td>CNR</td>
</tr>
<tr>
<td>Continue to work with the Cooperative Extension Office and the Conservation and Natural Resources Service (page 20).</td>
<td>Farmers; private landowners</td>
</tr>
<tr>
<td><strong>Residential</strong></td>
<td></td>
</tr>
<tr>
<td>Encourage the development of Traditional Neighborhood Development (TND) projects in and around all Activity Centers (page 23).</td>
<td>CCPB</td>
</tr>
<tr>
<td><strong>Rural Character/Quality of Life</strong></td>
<td></td>
</tr>
<tr>
<td>Educate area residents about the benefits of land conservation tools and how these methods can support continued land use for agriculture, wildlife propagation, game lands or recreation (page 26).</td>
<td>CCPB; PLC; CNR; CEO</td>
</tr>
<tr>
<td>Encourage co-location on existing cell towers in order to reduce visual impacts on the rural landscape; Also encourage the use of common accesses for individual/residential developments in order to minimize the number of curb cuts and to retain the sense of open space along the road (page 26).</td>
<td>CCPB</td>
</tr>
<tr>
<td>Work to ensure attractive visual and noise screening elements are used along area highways, where applicable (page 28).</td>
<td>CCPB; NCDOT; local developers; interested citizens</td>
</tr>
<tr>
<td>Maintain continued use of land for hunting and target shooting in the planning area (page 28).</td>
<td>Private property owners; local residents; utility companies; NC Wildlife Resources Commission</td>
</tr>
<tr>
<td><strong>Historic Preservation</strong></td>
<td></td>
</tr>
<tr>
<td>Educate property owners about the benefits of the National Register Program and other incentive programs that can encourage the preservation of historic areas and properties (page 29).</td>
<td>CCPB; HRC</td>
</tr>
</tbody>
</table>

†See Abbreviations Used, page 52.
<table>
<thead>
<tr>
<th>ACTION/PROJECT</th>
<th>RESPONSIBLE AGENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Historic Preservation continued...)</td>
<td></td>
</tr>
<tr>
<td>Promote the preservation and adaptive reuse of</td>
<td>CCPB; HRC</td>
</tr>
<tr>
<td>historic resources and incorporate historic</td>
<td></td>
</tr>
<tr>
<td>structures into the design of new developments;</td>
<td></td>
</tr>
<tr>
<td>work to preserve the historic character of</td>
<td></td>
</tr>
<tr>
<td>residential properties when converting them to</td>
<td></td>
</tr>
<tr>
<td>commercial uses (page 29).</td>
<td></td>
</tr>
<tr>
<td>Educate the public about Forsyth County's rich</td>
<td>CCPB; HRC</td>
</tr>
<tr>
<td>agricultural history and its varied historic</td>
<td></td>
</tr>
<tr>
<td>resources and encourage the preservation of the</td>
<td></td>
</tr>
<tr>
<td>cultural landscape (page 29).</td>
<td></td>
</tr>
<tr>
<td>Work with the HRC to designate Local Landmark</td>
<td>Property owners</td>
</tr>
<tr>
<td>Property designations in the area (page 29).</td>
<td></td>
</tr>
<tr>
<td>Economic Development</td>
<td></td>
</tr>
<tr>
<td>Support the creation of business parks at four</td>
<td>CCPB</td>
</tr>
<tr>
<td>locations identified on the Future Land Use Map</td>
<td></td>
</tr>
<tr>
<td>(page 32).</td>
<td></td>
</tr>
<tr>
<td>Encourage tourism in the area, the promotion of</td>
<td>CCPB; CEO; CNR; Small Business</td>
</tr>
<tr>
<td>agricultural-based small businesses, and the</td>
<td>Association; HRC</td>
</tr>
<tr>
<td>retention of historic farmsteads (page 32).</td>
<td></td>
</tr>
<tr>
<td>Activity Centers</td>
<td></td>
</tr>
<tr>
<td>Support medium- and high-density residential</td>
<td>CCPB; FCBOC</td>
</tr>
<tr>
<td>development and commercial rezoning requests only</td>
<td></td>
</tr>
<tr>
<td>at designated Activity Centers to discourage urban</td>
<td></td>
</tr>
<tr>
<td>sprawl from encroaching into the rural community</td>
<td></td>
</tr>
<tr>
<td>(page 39).</td>
<td></td>
</tr>
<tr>
<td>Community Facilities</td>
<td></td>
</tr>
<tr>
<td>Locate community facilities at MACs, CACs, and</td>
<td>CCPB</td>
</tr>
<tr>
<td>NACs, where appropriate (page 39).</td>
<td></td>
</tr>
<tr>
<td>Collaborate with the Winston-Salem/Forsyth County</td>
<td>WSFCS; CCPB</td>
</tr>
<tr>
<td>School (WSFCS) System on plans for schools in the</td>
<td></td>
</tr>
<tr>
<td>area including needs for expansion of elementary,</td>
<td></td>
</tr>
<tr>
<td>middle and high school facilities (page 39).</td>
<td></td>
</tr>
<tr>
<td>Work with the Forsyth County Library Board to</td>
<td>Forsyth County Library Board; CCPB</td>
</tr>
<tr>
<td>provide a branch library for the area (page 39).</td>
<td></td>
</tr>
<tr>
<td>Ensure that fire and police services keep pace with</td>
<td>Forsyth County Fire Department,</td>
</tr>
<tr>
<td>development in the area (page 39).</td>
<td>Forsyth County Sheriff's Office</td>
</tr>
</tbody>
</table>

*See Abbreviations Used, page 52.
### ACTION/PROJECT

(Community Facilities continued...)

<table>
<thead>
<tr>
<th>ACTION/PROJECT</th>
<th>RESPONSIBLE AGENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure that the recreation needs of neighborhoods are considered while collaborating with the school system on new school planning in the area (page 40).</td>
<td>WSFCS; FCPR; CCPB</td>
</tr>
<tr>
<td>Obtain minimum forty-foot easements along Abbotts Creek and the West Fork of the Deep River as part of the development process (page 40).</td>
<td>CCPB</td>
</tr>
<tr>
<td>Obtain conservation easements on sites that are to be developed along Abbotts Creek and the West Fork of the Deep River as part of the rezoning and subdivision process (page 40).</td>
<td>CCPB</td>
</tr>
<tr>
<td>Encourage rural conservation subdivisions in areas located outside Activity Centers, which are to be subdivided (page 40).</td>
<td>CCPB</td>
</tr>
<tr>
<td>Provide information to landowners and developers on the benefits and opportunities of land preservation, designation for parks and open space, available tax benefits and other incentives to preserve natural areas (page 40).</td>
<td>CNR; CEO; PLC; CCPB</td>
</tr>
</tbody>
</table>

### Transportation (See Appendix D)

<table>
<thead>
<tr>
<th>ACTION/PROJECT</th>
<th>RESPONSIBLE AGENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support the projects in the area that are on the Long Range Transportation Plan (LRTP) and Transportation Improvement Program (TIP) (page 41).</td>
<td>WSDOT; CCPB; TCC; TAC</td>
</tr>
<tr>
<td>Follow the progress of the PART analysis studying the feasibility of light rail through the planning area and support the location of a light rail stop (page 41).</td>
<td>WSDOT; CCPB; PART</td>
</tr>
<tr>
<td>Encourage the Metro Activity Center (MAC) site as a node for public transportation (page 41).</td>
<td>WSDOT; CCPB; WSTA; PART</td>
</tr>
</tbody>
</table>

*Bishop McGuiness High School is located in the area’s Metro Activity Center.*

*See Abbreviations Used, page 52.*
This local business along NC 66 supplies produce and flowers year-round.
# Implementation Schedule

## SCHEDULED ACTIVITIES

<table>
<thead>
<tr>
<th>ACTION/PROJECT</th>
<th>RESPONSIBLE AGENCY †</th>
<th>TIMING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establish a voluntary agricultural district ordinance for Forsyth County (page 19).</td>
<td>CCPB; CEO; CNR</td>
<td>Short Range</td>
</tr>
<tr>
<td>Re-establish the eligibility of properties within the planning area to participate in the Forsyth County Farmland Preservation Program (page 19).</td>
<td>CCPB; CNR</td>
<td>Short Range</td>
</tr>
<tr>
<td>Encourage community-farming initiatives, such as cooperatives, and pursue value-added opportunities for farmers (page 20).</td>
<td>CEO</td>
<td>Short Range</td>
</tr>
<tr>
<td>Explore mentoring programs for young farmers (page 20).</td>
<td>CEO; FFA</td>
<td>Long Range</td>
</tr>
<tr>
<td>Explore Community Supported Agriculture (page 20).</td>
<td>CEO</td>
<td>Medium Range</td>
</tr>
<tr>
<td>Form established network for information sharing and social interaction (page 20).</td>
<td>Farmers; Triad Cattlemen’s Association; Tobacco Grower's Association; Triad Horsemen's Association; 4-H; CEO; CNR, etc.</td>
<td>Short Range</td>
</tr>
<tr>
<td>Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommend Rural Conservation subdivisions and Modified Rural Conservation subdivisions as indicated on the Future Land Use Map (page 23).</td>
<td>CCPB</td>
<td>Short Range</td>
</tr>
<tr>
<td>Develop design criteria for a Rural Conservation subdivision ordinance; ensure incentives for developers and property owners (page 24).</td>
<td>CCPB</td>
<td>Short Range</td>
</tr>
<tr>
<td>Seek legislation to allow for the transfer of development rights within the county (page 24).</td>
<td>CCPB; local legislative delegation; NCAPA</td>
<td>Short Range</td>
</tr>
<tr>
<td>Environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommend Rural Conservation Subdivisions, Modified Rural Conservation Subdivisions or Traditional Neighborhood Developments (TND) in lieu of conventional subdivisions in most circumstances. Approve only rezonings that are compatible with the area plan's recommended land use plan (page 24).</td>
<td>CCPB</td>
<td>Short Range</td>
</tr>
</tbody>
</table>

*Timing:  Short Range: 1-5 years    Medium Range: 6-10 years    Long Range: 10 years or more

†See Abbreviations Used, page 52.
Develop a more accurate and extensive stream/wetland network and develop new digital GIS layers that represent known jurisdictional wetlands (page 24).

Preserve natural drainage features and maintain water quality by requiring riparian buffers (page 24).

Approve SIDAs and SNIAs only to promote increase growth and economic development in appropriate areas (page 25).

Minimize built-upon surface area by using a multitiered approach and employing Best Management Practices to manage postdevelopment runoff (page 25).

Investigate amending the UDO to further restrict development within water supply watersheds. (page 25).

Enforce the use of proper erosion control techniques during the construction/development process (page 25).

Require the erection and maintenance of protective fencing around preservation areas and require notes about such fences on plats and plans (page 25).

Hold an educational workshop demonstrating the importance of inventorying important natural features on properties. Develop an educational and incentive-based program for citizens and businesses to improve air quality (page 25).

Review the existing noise ordinance and determine if it provides adequate protection from noise. Consider adoption of a countywide, comprehensive lighting standards ordinance (page 25).

<table>
<thead>
<tr>
<th>ACTION/PROJECT</th>
<th>RESPONSIBLE AGENCY</th>
<th>TIMING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop a more accurate and extensive stream/wetland network and develop new digital GIS layers that represent known jurisdictional wetlands (page 24).</td>
<td>CCPB; Stormwater</td>
<td>Short Range</td>
</tr>
<tr>
<td>Preserve natural drainage features and maintain water quality by requiring riparian buffers (page 24).</td>
<td>CCPB; Inspections</td>
<td>Short Range</td>
</tr>
<tr>
<td>Approve SIDAs and SNIAs only to promote increase growth and economic development in appropriate areas (page 25).</td>
<td>CCPB</td>
<td>Short Range</td>
</tr>
<tr>
<td>Minimize built-upon surface area by using a multitiered approach and employing Best Management Practices to manage postdevelopment runoff (page 25).</td>
<td>CCPB; Inspections; Stormwater; FCDEA</td>
<td>Short Range</td>
</tr>
<tr>
<td>Investigate amending the UDO to further restrict development within water supply watersheds. (page 25).</td>
<td>CCPB</td>
<td>Short Range</td>
</tr>
<tr>
<td>Enforce the use of proper erosion control techniques during the construction/development process (page 25).</td>
<td>Inspections</td>
<td>Short Range</td>
</tr>
<tr>
<td>Require the erection and maintenance of protective fencing around preservation areas and require notes about such fences on plats and plans (page 25).</td>
<td>Inspections</td>
<td>Short Range</td>
</tr>
<tr>
<td>Hold an educational workshop demonstrating the importance of inventorying important natural features on properties. Develop an educational and incentive-based program for citizens and businesses to improve air quality (page 25).</td>
<td>CCPB; PLC; CEO; WSDOT; FCDEA</td>
<td>Short to Medium Range</td>
</tr>
<tr>
<td>Review the existing noise ordinance and determine if it provides adequate protection from noise. Consider adoption of a countywide, comprehensive lighting standards ordinance (page 25).</td>
<td>CCPB</td>
<td>Short to Medium Range</td>
</tr>
</tbody>
</table>

**Rural Character/Quality of Life**

Complete a survey of the significant scenic, environmental, natural, cultural and recreational resources found in the planning area (page 26).

Develop a comprehensive plan for a network of open spaces and wildlife corridors in the planning area. This Community Conservation Plan would be a guide for locating and designing new development in the area (page 26).

Adopt conservation subdivision standards and design guidelines, with incentives for developers and property owners, to preserve significant environmental, cultural and aesthetic features of the rural landscape (page 26).

<table>
<thead>
<tr>
<th>ACTION/PROJECT</th>
<th>RESPONSIBLE AGENCY</th>
<th>TIMING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete a survey of the significant scenic, environmental, natural, cultural and recreational resources found in the planning area (page 26).</td>
<td>FCPR; FCDEA; Public Works; CCPB; CNR; CEO</td>
<td>Medium Range</td>
</tr>
<tr>
<td>Develop a comprehensive plan for a network of open spaces and wildlife corridors in the planning area. This Community Conservation Plan would be a guide for locating and designing new development in the area (page 26).</td>
<td>FCPR; FCDEA; Public Works; CCPB; CNR; CEO</td>
<td>Medium Range</td>
</tr>
<tr>
<td>Adopt conservation subdivision standards and design guidelines, with incentives for developers and property owners, to preserve significant environmental, cultural and aesthetic features of the rural landscape (page 26).</td>
<td>CCPB</td>
<td>Short Range</td>
</tr>
</tbody>
</table>

*Timing: Short Range: 1-5 years  Medium Range: 6-10 years  Long Range: 10 years or more

†See Abbreviations Used, page 52.
### Historic Preservation

<table>
<thead>
<tr>
<th>ACTION/PROJECT</th>
<th>RESPONSIBLE AGENCY †</th>
<th>TIMING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish design standards for site design, building construction, exterior treatments, and signage within identified MACs, CACs and NACs to maintain a sense of place (page 27).</td>
<td>CCPB</td>
<td>Short Range</td>
</tr>
<tr>
<td>Establish community gateways at Activity Centers that provide opportunities for coordinated signage, community bulletin boards and plantings (page 27).</td>
<td>CCPB</td>
<td>Short Range</td>
</tr>
<tr>
<td>Work to limit the visual intrusion of vehicles at the site of proposed transit stations/Park and Ride lots along US 311 and I-40 by encouraging the screening of vehicles with landscaping and appropriate site selection (page 28).</td>
<td>CCPB</td>
<td>Short Range</td>
</tr>
<tr>
<td>Develop and adopt a countywide &quot;Dark Sky&quot; ordinance that addresses intrusive lighting from residential, commercial and industrial uses (page 28).</td>
<td>CCPB</td>
<td>Short to Medium Range</td>
</tr>
<tr>
<td><strong>Historic Preservation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Update the county's inventory of historic and archaeological resources within the planning area (page 29).</td>
<td>CCPB; HRC</td>
<td>Medium Range</td>
</tr>
<tr>
<td>Identify opportunities for the reuse of historic commercial buildings for small business use. Where applicable, incorporate existing historic buildings into the design of Activity Centers (page 29).</td>
<td>CCPB; HRC</td>
<td>Short Range</td>
</tr>
<tr>
<td>Consider the development of a Forsyth County Historic Marker Program to recognize significant historic sites throughout the county (page 29).</td>
<td>CCPB; HRC</td>
<td>Medium Range</td>
</tr>
</tbody>
</table>

*R: Timing: Short Range: 1-5 years   Medium Range: 6-10 years   Long Range: 10 years or more
†See Abbreviations Used, page 52.
<table>
<thead>
<tr>
<th>ACTION/PROJECT</th>
<th>RESPONSIBLE AGENCY †</th>
<th>TIMING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Development</td>
<td>CCPB</td>
<td>Short Range</td>
</tr>
<tr>
<td>Develop design guidelines to ensure that new business parks are high-quality developments that support job creation and economic expansion, and respect the rural character and natural environmental features of the area (page 32).</td>
<td>CCPB</td>
<td>Short Range</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community Facilities</th>
<th>CCPB; WSFCS</th>
<th>Short Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborate with the Winston-Salem Forsyth County School System on the implementation of plans for the area, including the need to build a new elementary school in the next five years with bond funding and the need to expand the existing Glenn High School (page 39).</td>
<td>CCPB; WSFCS</td>
<td>Short Range</td>
</tr>
<tr>
<td>Establish a park adjacent to Glenn High School, along Glenn Hi Road (page 40).</td>
<td>CCPB; FCPR</td>
<td>Short Range</td>
</tr>
<tr>
<td>Establish a park in the southern portion of Caleb's Creek, along Watkins Ford Road (page 40).</td>
<td>Town of Kernersville</td>
<td>Medium Range</td>
</tr>
<tr>
<td>Establish a passive park at the confluence of Abbotts Creek and Idlewild Road Branch, south of US 311 and north of Bear Run Lane (page 40).</td>
<td>CCPB; FCPR; nonprofit organizations</td>
<td>Long Range</td>
</tr>
<tr>
<td>Establish a passive park along Abbotts Creek, north of Ogden School Road (page 40).</td>
<td>CCPB; FCPR</td>
<td>Medium Range</td>
</tr>
<tr>
<td>Complete surveys to determine community preferences for types of facilities and programs (page 40).</td>
<td>CCPB; FCPR</td>
<td>Short Range</td>
</tr>
<tr>
<td>Complete master plans for proposed parks in consultation with residents (page 40).</td>
<td>FCRP</td>
<td>Long Range</td>
</tr>
<tr>
<td>Construct a greenway trail, in phases, along Abbotts Creek after completing a feasibility study to determine the most appropriate alignment (page 40).</td>
<td>FCRP; CCPB; Town of Kernersville</td>
<td>Feasibility Study - Short Range; Construction - Medium to Long Range</td>
</tr>
</tbody>
</table>

*Timing: Short Range: 1-5 years   Medium Range: 6-10 years   Long Range: 10 years or more
†See Abbreviations Used, page 52.
<table>
<thead>
<tr>
<th>ACTION/PROJECT</th>
<th>RESPONSIBLE AGENCY</th>
<th>TIMING*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Community Facilities continued...</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete a feasibility study of a proposed regional trail between southeast Forsyth County and High Point along the West Fork of the Deep River (page 40).</td>
<td>NCDOT</td>
<td>Medium Range</td>
</tr>
<tr>
<td>Link proposed greenway trails to existing and proposed parks, where feasible; explore the feasibility of a greenway trail along the existing gas utility easement and connect the proposed Metro Activity Center at I-40 and NC 66 to proposed greenway trails (page 40).</td>
<td>CCPB; FCPR; developers</td>
<td>Long Range</td>
</tr>
<tr>
<td>Designate the floodplains of Abbotts Creek and the West Fork of the Deep River as the backbone of the area's open space system (page 40).</td>
<td>CCPB</td>
<td>Short Range</td>
</tr>
<tr>
<td>Establish squares or plazas within proposed Activity Centers (page 40).</td>
<td>CCPB; developers</td>
<td>Short Range</td>
</tr>
<tr>
<td>Inventory scenic areas that could be included in the open space system. Identify priorities for land or easement acquisition for parks, greenways and open space (page 40).</td>
<td>CCPB</td>
<td>Short Range</td>
</tr>
<tr>
<td>Inventory archaeological and rural historic sites to be included in the open space system (page 40).</td>
<td>CCPB; HRC</td>
<td>Medium Range</td>
</tr>
<tr>
<td><strong>Transportation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support construction of a modified Ogden School Road Extension from Ogden School Road east to Bunker Hill/Sandy Ridge Roads (page 41).</td>
<td>CCPB; WSDOT; Kernersville Planning Department; TCC; TAC</td>
<td>Short Range</td>
</tr>
<tr>
<td>Investigate the possibility of designated truck routes on roads throughout the planning area (page 41).</td>
<td>NCDOT; CCPB; WSDOT; Town of Kernersville; NCDOT</td>
<td>Short Range</td>
</tr>
<tr>
<td>Create a network of sidewalks and greenways to provide pedestrians, runners and bicyclists with good access to neighborhoods, Activity Centers, recreation facilities and other community facilities (page 41).</td>
<td>CCPB; Kernersville Planning Department; FCPR</td>
<td>Short Range</td>
</tr>
<tr>
<td>Provide and encourage the use of Park and Ride lots (page 41).</td>
<td>PART; WSTA; NCDOT</td>
<td>Medium Range</td>
</tr>
</tbody>
</table>

*Timing:  Short Range: 1-5 years   Medium Range: 6-10 years   Long Range: 10 years or more
*See Abbreviations Used, page 52.
Abbreviations Used:

CCPB: City-County Planning Board
CEO: Cooperative Extension Office
CNR: Department of Conservation and Natural Resources
FCBOC: Forsyth County Board of Commissioners
FCDEA: Forsyth county Department of Environmental Affairs
FCPR: Forsyth County Parks and Recreation Department
FFA: Future Farmers of America
HRC: Historic Resources Commission
NCDOT: North Carolina Department of Transportation
NCAPA: North Carolina Chapter of the American Planning Association
PART: Piedmont Authority for Regional Transportation
PLC: Piedmont Land Conservancy
TAC: Transportation Advisory Committee
TCC: Technical Coordinating Committee
WSDOT: Winston-Salem Department of Transportation
WSFCS: Winston-Salem Forsyth County Schools
WSTA: Winston-Salem Transit Authority
The following properties are identified in the official inventory of historic properties for Forsyth County.

<table>
<thead>
<tr>
<th>Inventory Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(300)</td>
<td>Jeff Yokeley House, south side of Gum Tree Road</td>
</tr>
<tr>
<td>(301)</td>
<td>House (1850s two-story, brick house), end of Sherlie Weavil Road</td>
</tr>
<tr>
<td>(335)</td>
<td>Bodenhamer House, north side of Loradale Drive</td>
</tr>
<tr>
<td>(336)</td>
<td>Joe Idol House, east side of NC 66 &amp; south of Hickory Lane</td>
</tr>
<tr>
<td>(346)</td>
<td>House, south side of Old Salem Road</td>
</tr>
<tr>
<td>(349)</td>
<td>House, west of Teague Lane</td>
</tr>
<tr>
<td>(351)</td>
<td>House, north of Watkins Ford Road</td>
</tr>
<tr>
<td>(353)</td>
<td>House, Bunker Hill Road</td>
</tr>
<tr>
<td>(354)</td>
<td>House, south of Bunker Hill Road</td>
</tr>
<tr>
<td>(352)</td>
<td>House, northeast of end of Slate Road</td>
</tr>
<tr>
<td>(358)</td>
<td>Charles Teague House, east NC 66</td>
</tr>
<tr>
<td>(360)</td>
<td>Thornburg House, east NC 66, north of McNeil Road</td>
</tr>
<tr>
<td>(362)</td>
<td>House, NC 66 &amp; Welborn Road</td>
</tr>
<tr>
<td>(363)</td>
<td>Idol-Glascoe House (1870s)</td>
</tr>
<tr>
<td>(364)</td>
<td>House, Creekwood Forest Drive &amp; NC 66</td>
</tr>
<tr>
<td>(365)</td>
<td>Idol House (early 19th century), north of US 311</td>
</tr>
<tr>
<td>(366)</td>
<td>Joe Idol House, west of NC 66 &amp; south of Hickory Lane</td>
</tr>
<tr>
<td>(368)</td>
<td>Ray Idol House, close to High Point Road &amp; NC 66</td>
</tr>
<tr>
<td>(369)</td>
<td>Abraham Oliver Perry Teague House (late 19th century Greek Revival), east of Curry Road</td>
</tr>
<tr>
<td>(371)</td>
<td>Clodfelter House, west of Curry Road</td>
</tr>
<tr>
<td>(372)</td>
<td>Raper-Martin House, north of High Point Road</td>
</tr>
<tr>
<td>(373)</td>
<td>Jasper Raper House (1870s), north side of High Point Road</td>
</tr>
<tr>
<td>(375)</td>
<td>Wes Frye House, end of Leonard Farm Road</td>
</tr>
<tr>
<td>(377)</td>
<td>David Smith House (two-story, brick Greek Revival), east side of Union Cross Road</td>
</tr>
<tr>
<td>(380)</td>
<td>Charlie Tucker House, north side of Temple School Road</td>
</tr>
<tr>
<td>(679)</td>
<td>House, north of High Point Road</td>
</tr>
</tbody>
</table>
A local gardener grows more than the traditional corn, tomatoes and squash. This blueberry bush is almost ready to pick.
**Introduction**

In preparing the *Union Cross/Southeast Forsyth County Area Plan*, City-County Planning Board staff, guided by a Citizens’ Steering Committee, attempted to balance the existing development patterns with the need to identify future growth areas. Although the area retains many rural characteristics, there is considerable potential for significant development, including business park development, in the area over the next decade. The area is centrally located between Winston-Salem, Kernersville, and High Point and near the Piedmont Triad International Airport with its planned FedEx regional hub. Major roads, including I-40, US 311 (future I-74) and NC 66, provide excellent access to the area. Topography is relatively flat compared to other areas of Forsyth County with many large tracts in single ownership, site qualities that lend themselves to large-scale business park development. Forsyth County has only a limited number of economic development sites with these characteristics, making them an important community resource.

The *Union Cross/Southeast Forsyth County Area Plan* identifies four large areas for development as business parks (see Map 5). These areas range in size from approximately 200 to 550 acres for a total of approximately 1,500 acres. Staff has prepared design guidelines to ensure that business parks that do develop in the Union Cross/Southeast Forsyth County planning area are high-quality developments that support job creation and economic expansion, and at the same time, respect the rural character and natural environmental features of the area.

**Design Guidelines**

**Purpose**

The purpose of these design guidelines is to create high-quality business parks in a campus-like setting consisting of attractive buildings, significant natural open space and formal landscaped areas. The appropriate uses in these business parks are office/warehouses, light manufacturing and assembly, scientific and research laboratories, and corporate offices.

**Application**

These guidelines will be used by the City-County Planning Board and its staff as a means of organizing review of master plans for business parks in the Union Cross area. The guidelines identify important design elements that should be considered and the performance characteristics they should have. Since the setting and target market for each business park will be unique, there is no single formula for creating an excellent design. Therefore, where design elements of a master plan vary from the guidelines, their appropriateness will be judged on how well they address the overall intent of the guidelines and not on strict adherence to particular guideline elements.
COMMUNITYWIDE IMPACTS

RECOMMENDED OVERALL SITE SIZE
The recommended minimum site size for business parks is 100 acres. This threshold size will focus business park development at a few appropriate locations within the planning area, allow for coordinated development and sufficient land for a campus-like setting, and provide enough space for the effective use of buffers and preservation of natural areas. Each of the four business park locations identified in the Union Cross/Southeast Forsyth County Area Plan has sufficient area to meet this recommended minimum site size.

SITE BUFFERS
Site buffers consisting of existing vegetation supplemented by additional plantings and berms should be located along the periphery of the site to provide a visual screen and functional separation from public streets and adjoining residential land. The width of these buffers may vary depending on the physical characteristics of a particular site but in any case should not be less than 50 feet in width. Business parks located along scenic corridors identified in the Union Cross/Southeast Forsyth County Area Plan, required minimum buffers may be larger.

ACCESS
Access should be on roads of at least minor thoroughfare classification, and streets in the business park should be designed to allow access from adjacent neighborhoods but not draw traffic through local residential streets. There should be more than one major access point to avoid having only one way in and one way out. Connectivity of the street system within a business park is encouraged.

COMMON OPEN SPACE
A minimum of 20% common open space consisting of streams or lakes, floodplains, wetlands and slopes greater than 20%, and other open areas should be retained on the site. Common open space should be connected, where possible, to form a ribbon of green throughout the development. In areas where the site buffers are more than 50 feet, the area in excess of 50 feet may be counted as part of the common open space requirement if it is linked to other common open space areas. An existing site resources map should be prepared by the developer as part of the site planning process showing natural and constructed site features to be included as common open space.

STREAMS/WETLAND PROTECTION
Streams and wetland areas should be protected by requiring riparian buffers to the edge of the floodway fringe for FEMA regulated streams and 50-foot buffers from each side of streams and wetlands identified in the Forsyth County soil survey. Exact location and extent of streams and wetlands should be verified during preparation of the site resources map required to identify common open space elements.

ARCHITECTURAL DESIGN
Architecturally unified materials should be selected and emphasized for each structure and building site. Exposed standard concrete blocks and prefabricated metal are not recommended but may be acceptable for the sides and rear of buildings if they are screened from view of external property lines and internal roadways.

PLACEMENT OF STRUCTURES
All structures should be setback a minimum of 100 feet from the external property lines of the business park site. Employee parking may be located in this setback in the 50 feet closest to the building. Buildings on each building site should face interior streets and be setback a minimum of 60 feet. For large buildings, a greater setback that is in proportion to their footprint and height is encouraged in order to contribute to a campus-like setting. Buildings located on the corner of two streets shall be considered to have two front faces. Office/Warehouse buildings should be designed and placed on their lots so that views of loading docks from the street are minimized.

STORAGE/PROCESS AREAS
Businesses should meet the storage requirements of the “Manufacturing B” use in the Unified Development Ordinances which allows operations including storage of materials, processing, fabrication or assembly of products and loading and unloading of new materials only within enclosed buildings. Storage trailers or containers should be located in designated areas and screened from public streets or from the exterior of the business park. No outdoor processes should be employed in the operation of any business in the business park as stipulated by the requirements of the “Manufacturing B” use in the Unified Development Ordinances. Any waste and recycling receptacles should be located within an enclosed structure.
**OPERATION IMPACTS**
Operations at the business park should not produce dust, smoke, odors, fumes, air or water pollution, noise, gases, or vibrations as required by the requirements of the "Manufacturing B" use in the *Unified Development Ordinances*. The use of hazardous materials or volatile chemicals should be in compliance with all federal, State and local requirements.

**INTERNAL DESIGN**

**LANDSCAPING**
Extensive landscaping should be used to:
- create attractive medians at major entrance streets into the park;
- highlight public access points to buildings;
- buffer loading and utility areas;
- break up large parking areas;
- provide a transition between neighboring sites;
- compliment building design and materials; and,
- provide a transition between parking areas and the office portion of a structure.

**FENCES**
Perimeter and chain-link fencing is prohibited unless a special need can be demonstrated. In cases where the need is demonstrated, chain-link fencing should be as minimal as possible and its view from public streets or outside the business park should be screened by landscaping or buffering. Where it is necessary to use chain-link fencing, black, green, or earth-tone vinyl-coated fencing is preferred.

**PEDESTRIAN CIRCULATION**
A system of greenway trails that are part of the open space component of the business park and sidewalks along one side of major streets in the business park are encouraged. At each building site, sidewalks should link visitor parking areas and front yard parking areas to the main building entrance. Sidewalks should also link building sites to greenway trails and any sidewalks along major streets in the business park development.

**PARKING AREAS**
Parking areas located to the side or rear of buildings are encouraged. Extensive paved areas should be avoided in favor of smaller multiple lots separated by landscaping and buildings. Parking lots adjacent to and visible from public streets should be screened from view through the use of natural topography and created earthen berms, low screen walls, and changes in elevation, landscaping, or combinations of these design techniques.

**SIGNS**
A signage plan showing proposed park identification signs and standards for building façade and freestanding signs should be provided as part of the master plan for these developments. Park entrance signs should be a monument type not exceeding 15 feet in height. Freestanding signs should be a monument type with a maximum height of 5 feet. For structures, no attached or wall signs should be located above the roof line.

**ON-SITE LIGHTING**
All on-site lighting should be designed, located, shielded or deflected so as not to shine into off-site structures or impair the vision of the driver of any vehicle.

**DISPLAY AREAS**
No outdoor display areas should be allowed. All display areas should be located within flex-space or office buildings.

**SERVICE AREAS**
Provision for handling all truck service should be located at the rear or sides of buildings. Loading docks should be located at least 300 feet from adjacent residential areas. Where there is an intervening public street, the setback is reduced to 150 feet. Loading docks located on the side of any building should not be nearer than 50 feet from the front face of the building. Loading docks should be recessed, screened or otherwise designed to be totally buffered from adjacent properties and public roads.

**EXTERIOR MECHANICAL DEVICES**
Air conditioners, heating, cooling, ventilating equipment, pumps and heaters and all other mechanical devices including roof mounted mechanical equipment should be screened from view from the public right-of-way. All utilities should be placed underground.

**FLEX-SPACE AND MULTITENANT USES**
Multiuse and “flex-space” buildings designed to accommodate a number of tenants or a single tenant with needs for office, research, assembly and storage space in the same structure are encouraged to attract "start-up" operations and entrepreneurs.
The Union Cross area is dotted with old structures rich with character.
Design guidelines are a way for a community to have greater control over the appearance of new development and the way it fits into the community. The needs of the automobile have dominated design and development since the 1950s resulting in commercial development, which, while functional, often disregards the comfort and enjoyment of the ordinary person. As a result, when we go on vacation, we seek out pedestrian-friendly places like Blowing Rock or Charleston or Savannah. These are walkable places with streets and shops that are comfortable, interesting and pleasing to the eye. Design guidelines can help create these kinds of places in the Union Cross/Southeast Forsyth County planning area and elsewhere in our community by:

- creating better design and functionality in new, compact, commercial developments that implement the land use vision and goals for an area;
- providing clear direction for making design decisions to those designing, reviewing and approving these developments;
- reducing opposition to the approval of commercial development by creating destination developments that provide variety and choice and a sense of community pride; and,
- assuring the community that good design features and visual quality will be required whenever new development is proposed.

The following recommended design guidelines for Activity Centers draw from and expand on guidelines in *Legacy*, the adopted *NC 66/Old Salem Road Area Metro Activity Center Guidelines*, and the *Traditional Neighborhood Development Design Guidelines* prepared by the City-County Planning Board.

**MIX OF USES**

A mix of uses is key to achieving a "village or town center" feel in Activity Centers. All three types of Activity Centers should generally provide retail, office, residential and institutional uses linked by a highly connected pattern of streets, sidewalks, and shared open spaces. For Neighborhood Activity Centers, the residential component may be satisfied by housing outside the finite area of these relatively small developments. *Legacy* suggests the following blend of uses for the core area of Metro Activity Centers.

**Metro Activity Center**

<table>
<thead>
<tr>
<th>Land Uses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>(40% to 75%)</td>
</tr>
<tr>
<td>Residential</td>
<td>(25% to 50%)</td>
</tr>
<tr>
<td>Office</td>
<td>(25% to 50%)</td>
</tr>
<tr>
<td>Institutional</td>
<td>(2% to 5%)</td>
</tr>
<tr>
<td>Public Spaces</td>
<td>(2% to 5%)</td>
</tr>
</tbody>
</table>

**RESIDENTIAL USES AND DENSITIES**

A variety of housing types, including single-family detached, town homes, multifamily units, and accessory dwellings, should be created to provide diversity and a range of affordable housing in Activity Center developments.

Increased residential densities are encouraged in Activity Centers because they represent customers for the commercial component and for transit service where it is part of the development. For CACs and MACs, the limitation on residential density should be a function of parking demands, vehicular traffic generation, adequate utility service, building height and allowed lot coverage. Residential densities should increase from the edge of an Activity Center to the core.

**Suggested Residential Densities**

<table>
<thead>
<tr>
<th>Activity Center</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>NACs</td>
<td>4 - 6 units net acre</td>
</tr>
<tr>
<td>CACs</td>
<td>4 - 12 units net acre</td>
</tr>
<tr>
<td>MACs Core:</td>
<td>8 - 18 units net acre</td>
</tr>
<tr>
<td></td>
<td>12 - 40 units/net acre with transit stop</td>
</tr>
<tr>
<td>Support Area:</td>
<td>4 - 12 units net acre</td>
</tr>
</tbody>
</table>

**BUILDING PLACEMENT, SCALE AND DESIGN**

Buildings placement serves to define and enclose the pedestrian environment of streets, sidewalks and
open spaces. People feel most comfortable on streets where buildings provide some sense of enclosure. The feeling of enclosure is provided by the height-to-width ratio of the buildings to the street. Studies have shown that a ratio of 1:1 to 1:6 is the range that produces a sense of place. On wider major streets where it is more difficult to meet these ratios, a line of canopy trees can help provide the needed sense of spatial enclosure.

For Activity Centers, building heights should be greatest near the center of these developments and transition to lower heights outward toward the edge of the development. Buildings at the edge should be comparable in height and massing to the adjacent and nearby properties as well as the surrounding neighborhood.

Most big-box stores with their massive parking lots lack a human scale and feel unfriendly; however, they are appropriate for Metro Activity Centers and improved design can help them fit into the pedestrian character of these developments. Techniques like varied wall surfaces and heights can be used to reduce their perceived mass. Smaller retail spaces lining the front elevation of these buildings can make them friendlier at the pedestrian level.

The ground level of commercial buildings should contain public or semi-public uses such as retail or entertainment uses with direct entry from the street to provide pedestrian interest along sidewalks. Pedestrian interest can be enhanced with use of windows, entrances, and architectural details. Pedestrian signage, awnings, and ornamentation are encouraged. At least 35% of the first floor frontage walls of commercial buildings should be in windows or doors. Storefront windows should be transparent. Mirrored glass, faux windows or display casements are strongly discouraged.

**SUGGESTED BUILDING HEIGHTS**

<table>
<thead>
<tr>
<th>Activity Center</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>NACs</td>
<td>1 - 2 stories</td>
</tr>
<tr>
<td>CACs</td>
<td>1 - 4 stories</td>
</tr>
<tr>
<td>MACs Core:</td>
<td>3 - 6 stories, minimum 2 stories</td>
</tr>
<tr>
<td>Support Area:</td>
<td>1 - 3 stories</td>
</tr>
<tr>
<td>Building Height to Street Width Ratios:</td>
<td>1:1 to 1:6</td>
</tr>
</tbody>
</table>

**SIGNAGE**

Activity Center signs should comply with the sign requirements in the *Unified Development Ordinances*. The colors and styles of signs should be coordinated within the development. Scale and place signs for both automobiles and pedestrians.

**STREET DESIGN**

Streets, along with sidewalks and open spaces, should be designed as the main public spaces of Activity Centers. CACs and MACs should have a grid or modified grid of interconnected streets that disperse traffic and connect the Activity Center with surrounding development.

Streets within the development should have a design speed of 25 miles per hour. Parallel on-street parking should be provided on most streets to reduce the need for parking lots and act as a buffer between automobiles and pedestrians. Planted medians are encouraged on multilane roads to provide additional tree canopy and to reduce the visual height-to-width ratio of the overall streetscape.

**PEDESTRIANS, BICYCLISTS, AND TRANSIT USERS**

Activity Centers should be designed for the pedestrian as well as the automobile. The network of pedestrian and bicycle facilities needs to be comprehensive and convenient. Sidewalks should be placed on both sides of streets, whenever possible. Streetyards, street trees and parked automobiles should be used to provide a distinct separation and buffer between pedestrians and moving automobiles. Areas for future transit stops and bus pull-over sites should be reserved in the core area of Activity Centers and at multifamily complexes.

**SUGGESTED STREET AND SIDEWALK STANDARDS**

<table>
<thead>
<tr>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sidewalks</td>
</tr>
<tr>
<td>Commercial Core areas</td>
</tr>
<tr>
<td>Plazas/Gathering Places</td>
</tr>
<tr>
<td>Landscape strip</td>
</tr>
<tr>
<td>Large canopy trees</td>
</tr>
<tr>
<td>On-street parking lane</td>
</tr>
</tbody>
</table>

**AUTOMOBILE PARKING**

Streets and sidewalks lined by buildings rather than parking lots are more inviting and feel safer to the pedestrian. Surface parking lots should not dominate street frontages or negatively impact
surrounding developments. A minimum of 40% of required parking should be located to the rear or side of buildings. Parking to the side of buildings should not occupy more than one-third of the frontage of the building.

Parking lots along streets should be screened from adjacent streets and sidewalks by landscaping, walls, or fences. Large parking lots should be divided into several smaller lots using landscaping or other means. Parking lots should clearly define safe pedestrian passage to building entrances and the street.

Shared parking is strongly encouraged between adjacent or vertically mixed uses whose peak demand is offset from each other. An example is a church next to an office building.

Parking structures may be needed to achieve the compact, intense development called for in MACs. The ground level of parking structures should be wrapped by retail, office, or some other activity, at least on their primary facade. Care should be taken with the basic design elements and the level of materials and finishes on parking decks; otherwise, these often utilitarian structures can have negative aesthetic effects.

OPEN SPACE
All Activity Centers should provide usable open space in the form of urban spaces and/or natural areas. For a NAC, open space may be outdoor restaurant seating or a tot lot. For CACs and MACs, open space may include plazas, greens, playgrounds, and parks. Less formal open space uses such as walking or biking trails along natural streams, wetlands or other natural features should be used on the periphery of these developments.

Urban open space should be located where it is visible and easily accessible from public areas and have direct access from adjacent streets. The edges of urban open spaces should consist of active uses that provide pedestrian traffic and users for the space. The space should be visible to people passing by on nearby sidewalks and may be visible from adjacent streets but not wholly exposed to them. Urban open space should be partially enclosed using building walls, free-standing walls, landscaping, raised planters, or on-street parking to help buffer it and create a comfortable "outdoor room."

SENSITIVE SITE DEVELOPMENT
Sites for Activity Centers should be designed with the preservation of natural features in mind. Building sites within a development should avoid streams, floodplains, wetlands, and steep slopes. Wherever possible, street locations should account for difficult topographical conditions, paralleling contours to avoid excessive cuts and fills. Every attempt should be made to preserve large existing trees.

Stormwater runoff degrades water quality by transporting sediment and chemical pollutants from impervious areas such as parking lots, streets and sidewalks into streams and reservoirs. Stormwater runoff is the primary nonpoint source of contamination of surface water and groundwater. This is a significant issue since much of the planning area is in a water supply watershed. Erosion from new construction is currently regulated by a local Erosion and Sedimentation Control Ordinance. Federal regulations will require implementing a countywide stormwater management program in the near future that addresses the quantity and quality of stormwater runoff from existing and new development. Development of the larger MACs and CACs will probably require creation of stormwater retention ponds, the use of low-impact development, or other methods, to retain sediment and pollutants on-site.
The Hornytown Fire Department is one of two local volunteer fire stations that serve the area.
Appendix D. Transportation Improvements

**Abbots Creek Church Road** – Two lane roadway; lanes widened to 22-24 feet with 4-foot paved shoulders.

**Brookford Road** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Bunker Hill Road** – Two lane roadway; lanes widened to 22-24 feet with 4-foot paved shoulders.

**Bunker Hill-Sandy Ridge Road** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Burguss Road Extension** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Curry Road** – Two lane roadway; lanes widened to 22-24 feet with 4-foot paved shoulders.

**Glenn Hi Extension** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Glenn Hi Road** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Gumtree Road** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Hedgecock Road** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**High Point Road** (between Glenn Hi Road and Watkins Ford Road) – Two-lane roadway (22-24 feet wide) with dedicated 4-foot bicycle lanes on either side, wide outside lanes (2.5') and 6- to 12-foot sidewalks on either side.

**High Point Road** (between Watkins Ford Road and Horneytown Road) – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot foot sidewalks on either side.

**Horneytown Road** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**MAC Connector** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Main Street** (High Point) – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**NC 66** (between Interstate 40 and Bunker Hill-Sandy Ridge Road) – Four-lane roadway (50-52 feet wide) with outside lanes (2.5') for bicycle/share the road use, 6- to 12-foot sidewalks on either side and a 16-foot raised median.

**NC 66 (between Bunker Hill-Sandy Ridge Road and Payne Road)** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**NC 66 (between Payne Road and US 311)** – Four-lane roadway (50-52 feet wide) with wide outside lanes (2.5') for bicycle/share the road use, 6- to 12-foot sidewalks on either side and a 16-foot raised median.

**NC 66 South** (between US 311 and High Point Road) – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Oak Grove Road** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Ogden School Road and Extension** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Old Salem Road** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Payne Road** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Skeet Club Road** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Squire Davis Road** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Teague Lane** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Union Cross Road** (between Ridgewood Road and Wallburg Road) – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Union Cross Road** (between Wallburg Road and Old Salem Road) – Four-lane roadway (50-52 feet wide) with outside lanes (2.5') for bicycle/share the road use, 6- to 12-foot sidewalks on either side and a 16-foot raised median.

**Wallburg Road** – Three-lane roadway (40 feet wide) with wide outside lanes (2.5') for bicycle/share the road use and 6- to 12-foot sidewalks on either side.

**Watkins Ford Road** – Two-lane roadway (22-24 feet wide) with dedicated 4-foot bicycle lanes on either side, wide outside lanes (2.5') and 6- to 12-foot sidewalks on either side.
Old structures, such as this barn should be evaluated for inclusion in an updated historic resources inventory.
Acknowledgments

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Sheridan Hill, Vice-Chair
Penny Coggins
Amy Elliott
Chuck Folds
Beth Hester
Dean Mabe
Zane Sells
Mark Sohmer
Ron Wooten

*Citizens’ Advisory Committee members for the
Union Cross/Southeast Forsyth County Area Plan

INTERDEPARTMENTAL COMMITTEE
Jimmy Barrow, Kernersville Fire Department
Michael Bowman, Forsyth County Soil and Water Conservation District
Sgt. Dean Brown, Forsyth County Sheriff’s Department
Larry Brown, Forsyth County Health Department
Terry Cornett, City-County Utilities Department
Jeff Hatling, Kernersville Planning Department
Dan Kornelis, Forsyth County Housing Department
Mike Patton, North Carolina Department of Transportation
Rick Plunkett, Forsyth County Fire Department
Russell Radford, Kernersville Engineering Department
Bob Ragland, Forsyth County Environmental Affairs Department
Mark Serosky, Forsyth County Recreation and Parks Department
Tim Shields, Kernersville Public Works Department
Neal Stockton, Kernersville Police Department
Reginald Teague, Winston-Salem/Forsyth County Public Schools
Mark Tucker, North Carolina Co-operative Extension Office
Greg Venable, Winston-Salem Department of Transportation
For more information about the
Union Cross/Southeast Forsyth County
Area Plan
contact:
City-County Planning Board
Telephone: 336-727-2087
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E-mail: planning@cityofws.org
Web site: www.cityofws.org/planning